ANNUAL REPORT

2023

MARINE EDUCATION
& RESEARCH SOCIETY

Ripple (BCX1063) trap feeding
©MERS, MML-57

REFLECTING ON 2023

Dear MERS Community,

'Tis the time of year for reflection and what a year it has been for us at the Marine Education and Research Society.

There have been plenty of bright spots in 2023 that gave us hope and drive. We continued to document the return of Sea Otters to our area, a species once extirpated in British Columbia. We felt pride in community and the power of collaboration as we continued to join forces with others in marine conservation to expand our reach both scientifically and in education. We strategized with our team to prioritize mentorship, teamwork and balance to make MERS a great place to work. We launched a new website to tell our story and share resources. In the following pages, you'll find six more stories featuring our top 2023 MERS Moments.

While we are so proud of this year, it wasn't without significant challenges. The summer of 2023 was a particularly dangerous one for Humpback Whales off the coast of British Columbia. From July 20 to August 31, we were aware of 9 whales that had been struck by boats, 4 of these involved very large vessels. These are just the strikes that we know about, likely more have occurred that have been undetected or unreported. We will not accept that whale deaths or injuries are collateral damage to human activity. There's so much more we can all do to prevent these tragedies.

As we look toward 2024, we are energized and motivated by the work ahead. The coming year will see the release of our online Boater Course that provides comprehensive, easily accessible learning on how to operate vessels safely around marine mammals. We will cheer on our two graduate students as they defend their theses and share their findings on Humpback diets and vessel behaviour around marine mammals. We will enter Year 3 of a collaborative project investigating scars on Humpback Whales from entanglement and vessel strike to understand the rates at which Humpbacks face these threats.

None of this work (and much more) is possible without our supporters. Our most sincere THANKS to the organizations and individuals who support the work of MERS. Your contributions are what keep us working towards a future where the ocean, its inhabitants and the humans that surround it are thriving.

With gratitude,

Caitlin Birdsall - Director of Development

STUDYING GIANTS

Building on our long standing data set to create new collaborations

MERS team members have been documenting the return of Humpback Whales to northeastern Vancouver Island since before the organization's inception. We continue to add to this two decade-long data set. In 2023, with the help of our field teams and data contributors, we recorded 98 individual Humpback Whales in our core study area around northeastern Vancouver Island and 227 whales in our greater study area from the upper Salish Sea to Bella Bella and northwest Vancouver Island. This long standing data set creates the basis of much of our research on Humpback Whales.

To protect giants, however, you can't work alone. In 2023, MERS continued to lead the Canadian Pacific Humpback Collaboration (CPHC), established in 2020. This collaboration is made up of Humpback Whale researchers and cataloguers on BC's coast. Together, our individual regional efforts have helped rebuild a coast-wide, centralized catalogue and database, as one has not been maintained by DFO since 2010. This collaboration is an invaluable tool for research and conservation of Humpbacks as it enables understanding of the whales' habitat use, behaviour, population size and structure, life histories, and the impacts of threats like vessel strike and entanglement.

MERS plays an essential role in the CPHC by coordinating the efforts, including data submissions, database creation and administration, obtaining and distributing funds to partners, and holding workshops among collaborators that allow for collective discussion on research priorities and data use.

Jigger (BCX1188) breaching

REACHING A GLOBAL AUDIENCE

BBC's Planet Earth III highlights the Humpbacks of northern Vancouver Island

In December, the episode we have been waiting nearly three years for, finally aired! The MERS team worked with the BBC in the summer of 2021 and 2022 to film Humpback Whales off northeastern Vancouver Island for episode 7 of Planet Earth lll, the "Human" episode. In the episode, the Humpbacks of BC act as ambassadors for the importance of whales, second chances, the need to give them space, and the way forward for humans.

The episode shows the feeding behaviour "trap-feeding", first described by MERS in 2011, and discusses the importance of whales in reducing atmospheric carbon.

To have Sir David Attenborough speak about the whales we have studied for nearly two decades is completely surreal, but more importantly, contributing to the conservation messaging of the world's farthest-reaching nature documentary is beyond anything we could ever have imagined.

Planet Earth lll has aired in the UK and USA, and will be released in Canada in March 2024.

Planet Earth lll Producer Fredi Devas, Cinematographer Bertie Gregory and MERS team member Jackie Hildering
©Anthony Bucci

EYES ON THE WATER

Building local capacity for marine mammal response

In March, over 50 key community members from northern Vancouver Island participated in our "Eyes on the Water" workshop on marine mammal rescue and response.

MERS facilitated this workshop as a step to improve how resources on northern Vancouver Island can be used, aiming to optimize communications, skills and protocols to detect and report when marine mammals are in trouble. We were joined by colleagues from Fisheries and Oceans Canada (DFO), Vancouver Aquarium's Marine Mammal Rescue Centre, and Cetus Research & Conservation Society as presenters.

The workshop even provided a chance for some in-the-field learning with an exercise by DFO about what to do if there was a stranded cetacean. The team worked together to return the "stranded whale" (actually a blow-up whale filled with water) to the sea.

MERS continues to play a role in not only responding to incidents when tasked to do so by DFO, but also assisting with communications, education to support better detection and reporting, and follow up on marine mammals in distress.

Workshop participants undertake a refloatation exercise to practice rescuing a stranded whale
©James Willson

SHEDDING LIGHT ON SUNFISH

A banner year for Mola sightings

In 2021, we began collaborating with three international fish scientists to gather citizen science sightings (and photos) of Mola spp off the coast of western North America. Until 2019, it was assumed that any Mola spotted in temperate waters off our coast were Mola mola, the Ocean Sunfish. However, in 2017 a new Mola was described by science, the Mola tecta, also known as the Hoodwinker Sunfish. While first thought to be found only in the southern hemisphere, in 2019 the question of whether it ranged into the north arose. It turned out, they do! They've just been mistaken as being Mola mola up until now!

This year, we had an excellent year for Mola sightings submissions, 76 in total!

Mola mola

Better boater education to protect whales AND humans

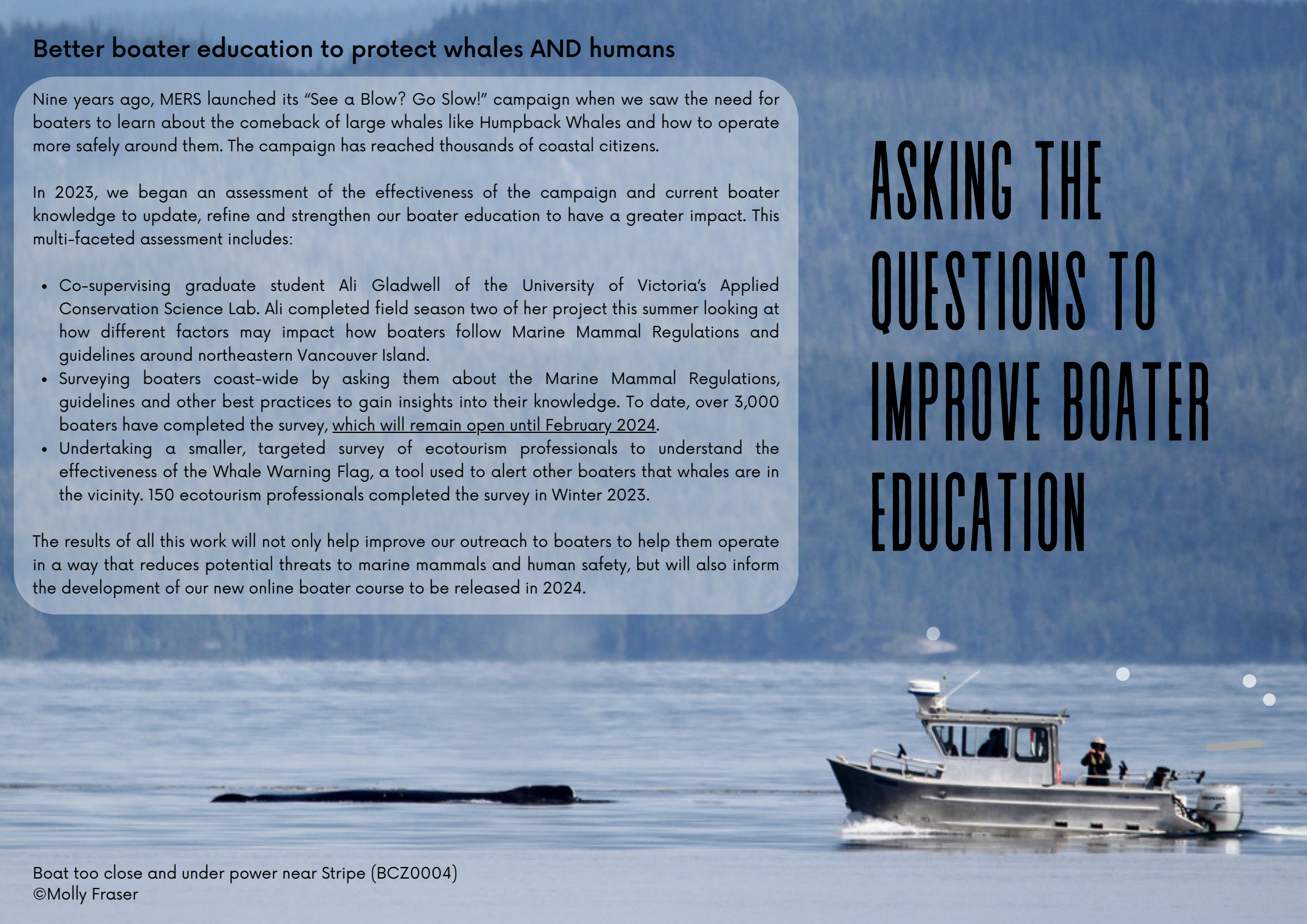
Nine years ago, MERS launched its "See a Blow? Go Slow!" campaign when we saw the need for boaters to learn about the comeback of large whales like Humpback Whales and how to operate more safely around them. The campaign has reached thousands of coastal citizens.

In 2023, we began an assessment of the effectiveness of the campaign and current boater knowledge to update, refine and strengthen our boater education to have a greater impact. This multi-faceted assessment includes:

- Co-supervising graduate student Ali Gladwell of the University of Victoria's Applied Conservation Science Lab. Ali completed field season two of her project this summer looking at how different factors may impact how boaters follow Marine Mammal Regulations and guidelines around northeastern Vancouver Island.
- Surveying boaters coast-wide by asking them about the Marine Mammal Regulations, guidelines and other best practices to gain insights into their knowledge. To date, over 3,000 boaters have completed the survey, which will remain open until February 2024.
- Undertaking a smaller, targeted survey of ecotourism professionals to understand the effectiveness of the Whale Warning Flag, a tool used to alert other boaters that whales are in the vicinity. 150 ecotourism professionals completed the survey in Winter 2023.

The results of all this work will not only help improve our outreach to boaters to help them operate in a way that reduces potential threats to marine mammals and human safety, but will also inform the development of our new online boater course to be released in 2024.

ASKING THE QUESTIONS TO IMPROVE BOATER EDUCATION



Boat too close and under power near Stripe (BCZ0004)
©Molly Fraser

EMPOWERING OTHERS

Sharing skills to better marine mammal conservation

MERS team members Jackie and Marieke after a workshop with members of the Pauquachin First Nation Stewardship Program

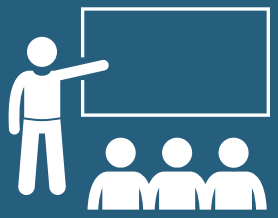
To really impact marine conservation, we need an army of empowered, invested, passionate advocates that engage others. To create this community and provide in-depth knowledge about marine mammals and their conservation, we hold workshops with key audiences. In 2023, we had our biggest year ever, with seven different workshops held that included 253 participants.

Each workshop is tailored for the audience, who include First Nations, boating groups, marine naturalists, guides, fisheries officers, and other government officials. These multi-day intensive courses aim to equip participants with the latest science and research on the species off our coast and their threats, provide specific examples of how these threats can be reduced, suggest educational approaches for sharing this information, and build capacity for collecting sightings data and monitoring for incidents such a vessel strike and entanglement.

MORE MERS 2023 BY THE NUMBERS

Survey
Track Lines Run

51



Attendees at MERS
Presentations and Webinars

1,431

Individual Humpbacks
Identified in Our Study Area

227

Marina Visits for
Boater Outreach

23

Boater Surveys
Completed

3,517

New Humpback
Calves Recorded

11

Staff Team
Building Events

4

Visitors to
our Office

1,648

THANK YOU.

Our supporters make this work possible. An Ocean of Gratitude to all our Donors, Humpback Sponsors, Auction Sponsors, and Fundraising Trip Partners (Campbell River Whale Watching and MacKay Whale Watching).

2023 GRANTS

Habitat Stewardship Program for Species at Risk
Canada Nature Fund for Aquatic Species at Risk
Marine Mammal Response Program Funding
Community Services Recovery Fund
Boater Safety Contribution Program - Transport Canada
North Island Marine Mammal Stewardship Association Conservation Fund
Clayoquot Biosphere Trust (for Humpbacks of Clayoquot and Barkley Sound project)

2023 CORPORATE AND FOUNDATION DONORS >$5,000

Kinsta Inc
McMillan Family Foundation
Orca Spirit Adventures
Sandpiper Foundation
The Whale Centre (for Humpbacks of Clayoquot and Barkley Sound project)

The Marine Education and Research Society is a Canadian Registered Charity: 857599112RR0001
#19-1705 Campbell Way, PO Box 1168, Port McNeill, British Columbia
info@mersociety.org / (604) 413-6963
www.mersociety.org

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