

# **Hawaiian Islands Humpback Whale National Marine Sanctuary**

## **Agency Report to the Sanctuary Advisory Council**

### **April 12, 2024 - July 29, 2024**

**Agency:** NOAA/NOS/ONMS/HIHWNMS  
**Presented by:** Kim Hum, Superintendent  
**Date:** July 29, 2024

### **Agency Accomplishments & Recent Activities**

#### **Hawaiian Islands Humpback Whale National Marine Sanctuary Participates in Regional Stranding Workshop**

Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS) participated in a Pacific Islands regional workshop on stranded cetacean health priorities hosted by NOAA Fisheries' Protected Resources Division. The multi-day workshop focused on research and sampling priorities, including health surveillance, for existing and emerging risks and threats. Topics of discussion included an overview of Hawaiian history and cultural practices related to cetacean strandings, priority species, anthropogenic threats, climate change, and pathogens and contaminants of concern. HIHWNMS and our State co-managers provided information on our role in reducing the threats associated with humpback whale strandings, including vessel strikes, entanglement, contaminants, acoustic disturbance, and climate change.

#### **Citizen Scientists Count 5,000+ Whales During 2024 Whale/Ocean Count**

More than 1,300 volunteers counted 5,120 humpback whales during the HIHWNMS Ocean Count and the Pacific Whale Foundation's Great Whale Count on the last Saturday of January, February, and March 2024. This number may represent duplicate sightings of the same koholā by different observers or at different time periods or different locations throughout the count days. Data collected during the Sanctuary Ocean Count and Great Whale Count combined with the results from other research efforts can help reveal trends in koholā occurrence within and across whale seasons. Volunteers were also able to educate 1,110 members of the public who stopped by their sites to learn more about humpback whales. HIHWNMS' Ocean Count is supported by the National Marine Sanctuary Foundation.

#### **Recovery of Sound Monitoring Moorings Underway in Hawaiian Islands Humpback Whale National Marine Sanctuary**

As the humpback whale breeding and calving season concludes during the month of May, our staff and partners began recovering our sound monitoring moorings, which had been deployed since November/December 2023. Data from these moorings will be archived at [NOAA's National Centers for Environmental Information](#). Data analysis will focus on timing and presence of humpback whales in sanctuary waters, vessel presence indicators for use evaluations, and reef sound indicators for status and trend assessments in order to support sanctuary management in the region. These sound monitoring moorings are part of the national ONMS Sound Monitoring Program.



*ONMS staff recover a sound monitoring mooring off the coast of Maui (Photo Credit: Jason Moore)*

### **Hawaiian Islands Humpback Whale National Marine Sanctuary Concludes 22nd Season Coordinating Large Whale Entanglement Response Efforts in the Hawaiian Islands**

HIHWNMS wrapped up its 22nd season coordinating large whale entanglement response efforts in sanctuary and nearby waters around the Main Hawaiian Islands. The sanctuary-coordinated network received 30 reports of entangled whales; 21 reports were confirmed, representing seven different humpback whales and three entangled dolphins (a bottlenose and two spinners). The sanctuary and its partners mounted 13 coordinated on-water response efforts. Many of the entangled whales were evasive and weather conditions were poor, making for a challenging season with only one animal - a spinner dolphin entangled in over 400 feet of line, being actively freed. However, the season had many highlights and firsts. For example, we successfully completed the first drone-deployed attachment of a multi-sensor suction-cup tag on an entangled whale. The effort was part of a multi-year collaboration with Ocean Alliance to better quantify the impacts of entanglements and investigate the broader use of drones to actually cut whales free. The network also received news that a humpback whale the sanctuary had freed of over 800 feet of  $\frac{5}{8}$ " coaxial cable in 2017 had been re-sighted with a calf in sanctuary waters. The sanctuary also successfully used a live-streaming pole system we designed - the whale exoscope – to cut free an entangled humpback whale off Dutch Harbor, Alaska.



*CATS multi-sensor tag being dropped on an entangled humpback whale.*



*Ed Lyman of HIHWNMS uses “whale exoscope” to cut free a humpback whale off Dutch Harbor, Alaska (photo credit: Sadie*

*Wright, NOAA MMHSRP, permit # 24359)*



*Entangled humpback whale freed in 2017 from over 800 feet of cable running through its mouth.*

### **Hawaiian Islands Humpback Whale National Marine Sanctuary Wraps Up 2024 Health and Risk Assessment Monitoring Season**

HIHWNMS finished a productive humpback whale monitoring season, conducting 24 monitoring cruises aboard the R/V Koholā, between December 20, 2023 and March 30, 2024. HIHWNMS conducts dedicated cruises to monitor the health of and risks to humpback whales in sanctuary waters, supplementing reports received from the on-water community. We assessed and documented more than 500 animals within 131 groups of humpback whales, and obtained and submitted more than 360 fluke IDs to the digital AI catalog, Happywhale. Sanctuary fluke IDs have recently contributed to an updated humpback whale population estimate showing a population that has decreased since a strong marine heatwave affected the North Pacific in 2013. We also obtained and analyzed imagery to assess entanglement threat through scar analysis. Preliminary findings suggest around 13.2% of humpback whales in Hawai'i have recently been entangled. As part of an effort to better understand the energetic costs to impacted animals (e.g., entangled and ship-struck) the team attached 23 non-invasive, multi-sensor, suction-cup tags on 21 healthy and compromised humpback whales, providing more than 20 hours of rich, multi-stream data. Two of the tags were attached to compromised whales, one of them entangled. Twelve tags were deployed by Uncrewed Aerial Systems (UAS) platforms, many through a partnership with the non-profit Ocean Alliance. The remaining tags were attached by more conventional pole deployment. UAS platforms also provided non-invasive aerial photogrammetry and collected breath samples for condition and stress analysis.



*Left: Monitoring crew attached a CATS multi-sensor suction-cup tag to a humpback whale using a long pole. Right: Monitoring crew uses a UAS platform to drop a suction-cup tag on an animal.*



*Above: Sanctuary research and response vessel monitoring whales within sanctuary waters.*

**HIHWNMS Joins Kaua'i Visitor Industry Wildlife Summit Panel** On May 16, HIHWNMS Program Specialist Jean Souza joined a panel of eight Kaua'i experts sponsored by the Hawai'i Tourism Authority to address coexistence with and support for threatened and endangered wildlife. The wildlife summit, which was free and open to the public, attracted 80 people for a 3-hour program. This event is expected to be the first of a series of public discussions to address visitor interaction with protected wildlife. Aided by HIHWNMS science and resource management staff, Jean provided a 2024 update on the status of humpback whales in Hawai'i, summary of research and entanglement response activities, and a list of actions to avoid adverse impacts on whales.

## Kalaheo Elementary School Field Trip to Kaua'i Ocean Discovery



On May 10, Kukui Grove Center organized a special field trip for 50 Kalaheo Elementary School second graders to Kaua'i Ocean Discovery and more. Jean Souza coordinated the event with teachers, mall management, and fellow tenants, and set up learning stations throughout the mall where students rotated through in organized groups. Learning objectives included an analysis of goods and services, entrepreneurship and skills, Kaua'i environment and pono (correct and sustainable) values and behavior toward protected species and each other. Jean also worked with a teacher to develop a student field trip journal for the students to record what they learned.

*Top: Students learning about honu (green sea turtles) and ocean etiquette at Kaua'i Ocean Discovery, one of five learning stations. Bottom: KOD partner and maritime educator teaches about Hōkūleʻa, wayfinding, and working together as a crew.*

## HIHWNMS Welcomes Hollings Interns

Sofia Nuri is a senior at Brown University majoring in environmental science. Her previous research experience includes two years at the Smithsonian National Museum of Natural History learning biotechnology such as DNA sequencing and operating a scanning electron microscope. Additionally, at the Carnegie Institute for Science, she developed biotech skills such as protein purification and transforming bacteria. She is also a member of the marine biology Lab at Brown under Professor Jon Witman where she has assisted with megafauna identification and measuring fish biodiversity under the effects of megafauna presence in the Galapagos. She is excited to be at HIHWNMS where she is developing educational tools and games regarding the humpback whale migration cycle and whale songs.

Leah Henseler is originally from Upstate New York but is now entering her final semester at the University of Miami. She is a double major in Marine Affairs and Studio Art with a minor in Latin American Studies. With those two interests, she hopes to practice art to create environmental change and use the environment to inspire artistic change. She previously worked at the intersection of art and science while using glass to model tissue dynamics of marine organisms in the Prakash Lab of Biophysics and the ACCESS Lab of Structural Engineering. Working for environmental artist Xavier Cortada, developing and teaching climate change to over 2,000 students has shown her the unique place for art in the realm of science and science education.

As a 2023-2025 HIHWNMS Hollings Scholar, she will be developing an interactive education curriculum to inspire the next generation of change-makers.

### **HIHWNMS Joins Lahaina Community Event**

HIHWNMS Program Associate Lizzy Beato and the sanctuary's 2024 Hollings' Scholars attended the Boys and Girls Clubs of Maui and Department of Health's community event, *Jammin' Into June* on Saturday, June 1, 2024. This event was geared towards families of West Maui impacted by the 2023 wildfires and featured live performances, free gifts, fun activities for kids, and access to community resources and support. Our HIHW table featured puzzles, marine animal crafts, information about our work at the sanctuary, fisheries information from our State co-managers, and flyers promoting our visitor center and upcoming sanctuary events this summer. We engaged with a total of 150 community members, many of whom had never been to our Kīhei Visitor Center before, and distributed over 100 sanctuary and DAR materials to local keiki, including coloring books, humpback activity books, and posters.

### **HIHWNMS Collaborates in Experiment to Examine the Role of Sound in Coral Larval Recruitment**

Between 18 May and 2 June, HIHWNMS Research Ecologist Dr. Marc Lammers and Research Coordinator Assistant Maura Schonwald participated in a collaborative project led by the Woods Hole Oceanographic Institution (WHOI) to examine the role that sound plays in the recruitment of coral larvae on reefs. The goal of this project is to help determine whether playbacks of reef sounds could help enhance coral reef restoration efforts. The two-year, WHOI-led effort is a partnership with HIHWNMS, the State Division of Aquatic Resources, Maui Ocean Center, and The Nature Conservancy, and is funded by the National Fish and Wildlife Foundation. During the first year, coral larvae spawned from captive colonies maintained at Maui Ocean Center are being exposed to various experimental treatments of sound to quantify the effect of reef sound exposure on their rate of settlement. The WHOI team was on Maui in late May to get this phase of the project started and returned in mid-June for additional experiments to coincide with known coral spawning periods. The second year of the project (which will take place next summer) will see the experiment adapted to *in situ* conditions on coral reefs around Maui.

*Photos: Images of the experimental work being conducted at Maui Ocean Center showing (from left to right) coral colonies spawning at dawn shortly after the full moon, the sound exposure experimental setup, and youth HIHWNMS volunteers helping to collect coral spawn.*



## HIHWNMS Celebrates World Ocean Day at the Maui Ocean Center



On Saturday, June 8th, HIHW's new Outreach and Education Program Associate, Lizzy Beato, and HIHWNMS volunteers attended the World Ocean Day celebration hosted by our partners at the Maui Ocean Center. During this event, we engaged with over 1,000 visitors, promoting our upcoming sanctuary events and Kihei visitor center, creating ocean-themed crafts, and teaching visitors about humpback whales, other ocean resources, and the work we do at HIHWNMS. A significant number of the people we talked with were local Maui residents, many of whom were learning about our work for the first time.

*HIHWNMS volunteers Grenn and Kathleen Clark pose in front of the Deep Reef tank next to our HIHWNMS outreach station at the Maui Ocean Center on World Ocean Day 2024. Grenn is modeling our shark hat, and Kathleen is looking great in an ocean crown craft.*

## HIHWNMS Kihei Site has an Endangered Visitor

Over the week, a young male Hawaiian monk seal was seen resting on the beach adjacent to the HIHWNMS Kihei visitor center. With an estimated 1,600 Hawaiian monk seals left in the world, and only about 400 living in the main Hawaiian Islands, any sighting of this endangered species is an exciting one! Hawaiian monk seals occasionally haul out on beaches to rest, molt, give birth, and nurse, and when they do, it is essential that the community follows best practices for wildlife viewing so that they remain undisturbed (e.g., 50 feet away for monk seals). If this young seal chooses this beach for his first molt, it's very likely that we will be seeing him often in the coming weeks!



*This Hawaiian monk seal was sighted on the beach outside of Ko'ie'ie fish pond near the HIHWNMS Kihei visitor center, which can be seen in the background of this image. Photo credit: Lizzy Beato*

## Kaua'i Ocean Discovery Organizes World Ocean Day at Kukui Grove Center

In the weeks prior to World Ocean Day, HIHWNMS program specialist Jean Souza, who also serves as Kaua'i Ocean Discovery on-site manager, took a lead role in organizing a mall-wide outreach event at Kukui Grove Center, the island's only regional shopping center and the location of KOD. Outreach and activity stations were set up by mall tenants, seabird organizations, marine debris organizations, and Kaua'i Ocean Discovery.



*Photo: Baby Shark visits Kaua'i Ocean Discovery on World Ocean Day (NOAA photo by J. Souza)*

### **HIHWNMS Hosts Family Science Night Featuring Dr. Marc Lammers and the Wild Kratts**



On Saturday, June 15th, HIHW hosted a family-friendly science event at our community center in Kīhei. Families and HIHW volunteers joined us for a screening of PBS's "Wild Kratts," followed by demonstrations of whale tagging and some amazing footage collected through this research. After the screening and Q&A session, the guests were welcomed into the visitor center to learn more about humpback whales and engage with sanctuary staff members.

### **HIHWNMS recognizes Lee James as Volunteer of the Year**

On Saturday, June 15th, as part of HIHWNMS's Family Science Night, we recognized SAC member Lee James for his amazing work over the past two decades.

Lee leads the West Maui Large Whale Entanglement Response team, conducting and participating in trainings and mounting response efforts. He provides a dedicated response vessel for monitoring and research efforts, including drone operations, sampling, and gear deployments, and maintains a 24-hour on-call status for whale response during whale season. Lee was also instrumental in securing community support to replace a response kit lost in the Lahaina fires. Whether helping HIHWNMS in its outreach efforts, conducting science, or cutting a whale free of a life-threatening entanglement, Lee is a premier example of just how critical our volunteers are to the success of our mission.



### **HIHWNMS Celebrates World Ocean Month**

On Saturday, June 22nd, Patty Miller, Program Specialist, and Lizzy Beato, Program Associate, with the help of our amazing HIHW volunteers, hosted a World Ocean Month Celebration event at HIHW Kīhei. The event featured our inflatable whale, Kamakai, a keiki mural painting station, fish printing crafts, a honu naturalist station, and extended hours in our visitor's center. Over the four hour event, we hosted over 100 guests, many of whom were local Maui residents.



*Left:* Honu Patrol volunteer Connie Webb talks turtles with some guests on the HIHW sanctuary lanai. *Right:* HIHW volunteers Jeep and Lucy showing off guests' beautiful fish prints at the ocean arts station during the HIHWNMS World Ocean Day celebration. (Photo credit: Lizzy Beato)

### **HIHW R/V Koholā Assists USCG Station Maui with Proficiency Towing Exercises**

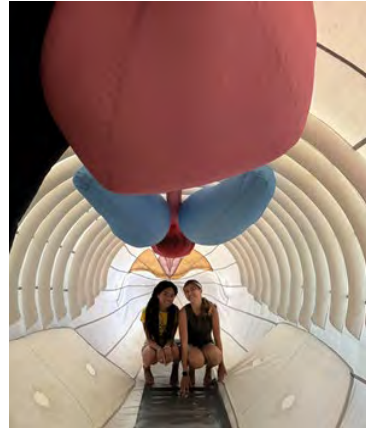
USCG District 14 Station Maui is a small boat station located at Mā'alaea Harbor on the South Shore of Maui. The Station conducts Search and Rescue and Law Enforcement operations in the 7,000 square miles encompassing Maui Nui (islands of Maui, Moloka'i, Lāna'i, Kaho'olawe, Molokini) and the Western tip of Hawai'i Island. USCG Station Maui is focused on maritime safety of crew and the public through partnerships with Federal, State, and County organizations, including NOAA.

They conduct maritime safety exercises monthly to keep the crew sharp on their towing knowledge and skills. Station Maui reached out to HIHW to provide R/V Koholā as a 'distressed vessel' to stay proficient with this month's towing exercises. On 06/26/2024, Captain Jason Moore and Captain Grant Thompson arrived and readied R/V Koholā shortly before sunset to act as a distressed vessel needing a tow. Low-light at dusk incorporates an element of complexity to the training exercise, as not all emergencies happen during optimal daylight hours. HIHW appreciates every opportunity to partner with Station Maui, as these types of exercises benefit our crew as well.



### **Kamakai Celebrates the 4<sup>th</sup> of July!**

Kamakai is a life size inflatable whale who, along with HIHW Education Coordinator Patty Miller, NOAA Corps Officer Shellyann Rofrits, and our trusty volunteers, spent July 4<sup>th</sup> with guests at the Outrigger Ka'anapali on Maui celebrating our ocean. Locals and visitors, young and old, enjoy going inside Kamakai to learn about a whale's internal organs. The sanctuary also hosted a variety of ocean crafts for kids and information about whales and the sanctuary.



### **Young Humpback Whale Freed from Life-Threatening Entanglement on Independence Day in the Port of Valdez, Alaska**

Hawaiian Islands Humpback Whale National Marine Sanctuary's Natural Resource Specialist, Ed Lyman, led a response on July 4<sup>th</sup> to free a two-year old humpback whale from a life-threatening entanglement off the Port of Valdez, Alaska. Freeing a 30-ton animal is always challenging, but the remote location, holiday weekend, nearby forest fires, and extreme weather all posed additional challenges in this case. The response team could only fly part way to Valdez, and then had to catch a tour boat, bus, and 75 nautical mile boat ride across Prince William Sound onboard the U.S. Coast Guard patrol boat out of Station Valdez. Working from the same boat and with the same crew, and with assistance from John Moran of NOAA's Auke Bay Laboratories, the team was able to free the young whale in just over four hours, making for a long, but successful day. This was the second humpback whale HIHWNMS has helped free in Alaska this summer as part of a long-term partnership with NOAA Fisheries that helps fulfill HIHWNMS' mission to protect humpback whales and their habitat.



*Ed Lyman uses a 28-foot carbon-fiber pole with a hooked knife on the end to free a humpback whale from onboard the U.S. Coast Guard Station Valdez's patrol boat. The end of the Alaskan Oil pipeline is in the background. Photo credit: Ed Lyman, NOAA MMHSRP, permit # 24359.*

### **HIHWNMS Wraps up the 2024 Season with NOAA Fisheries in Alaska**

HIHWNMS's Natural Resources Specialist, Ed Lyman, finished the sanctuary's 20th seasonal detail with NOAA Fisheries Protected Resources Division in Alaska.



The long-term partnership that is part of a Service Letter Agreement between NOAA Fisheries and HIHWNMS helps HIHWNMS fulfill its mission to protect humpback whales. The effort focuses on maintaining large whale entanglement response, helping cut whales free, and assisting with research efforts. This past season, Ed conducted response trainings in Unalaska, Anchorage, Juneau, and Coffman Cove, Alaska. He also led efforts to free two young humpback whales - one off Dutch Harbor and the other off the Port of Valdez, Alaska. In addition, he conducted numerous media, outreach, and research efforts. Over the past 20 years, Ed has led over 130 multi-day large whale entanglement response trainings, representing more than 1,000 hours, from Dutch Harbor to Ketchikan, Alaska. Ed has directly freed six humpback whales from life-threatening entanglements while in Alaska and, through guidance and oversight, protected scores more. The effort

is part of NOAA Fisheries' Marine Mammal Health and Stranding Response Program, and engages many communities throughout Alaska.

## **July starts off with a bang as HIHWNMS personnel assist in freeing two humpback whales off Cape Cod, MA.**

HIHWNMS's Large Whale Resource Protection and Monitoring Assistant, Maria Harvey, headed to Provincetown, Massachusetts to aid the Center for Coastal Studies (CCS) with disentanglement efforts for the month of July. Cape Cod has always been a hot-spot for entanglement cases over a variety of species including North Atlantic Right whales, Fin, Minke, and Humpback Whales. By providing support and expertise during one of their busiest months, Maria and the CCS team have already successfully disentangled two humpback whales off the shores of Cape Cod/Boston, and within Stellwagen Bank National Marine Sanctuary.

Freeing large whales is always challenging, and location, time of day, weather, and the animal's behavior can make it even more complex and difficult. On July 3rd, CCS and HIHWNMS personnel responded to a reported entanglement of the 17 year-old humpback whale known as Bounce. When the team arrived, Bounce was traveling between 10-12kts; using keggging methods, the team was able to slow her enough to work on the entangling gear. Bounce made multiple close passes, showing aggressive behavior towards the safety boat, R/V Ibis, and to the inflatable. Due to the whale's behavior, the team opted to work from a greater distance, removing gear to the best of their ability. After several hours, the team was able to remove 110 feet of gear, allowing Bounce to swim away with a small amount of asymmetrical gear left in her mouth that will shed when she starts feeding again.

On July 8th, CCS and HIHWNMS personnel responded to another entanglement call of a 27 year-old humpback whale known as Mudskipper, seen entangled in Stellwagen Bank National Marine Sanctuary waters. Mudskipper was traveling with her calf and towing roughly 170 feet of gear through her mouth. The team worked quickly to remove gear and prevent any danger the gear might present to the calf. Using keggging methods, the team moved up the entangling line to add floatation/drag. While the team prepared to make an asymmetrical cut to the gear, the buoyed drag caused the line to start slipping through Mudskipper's mouth. The team decided to fall back as the mom and calf pair sped up. After several minutes at this higher speed, the entirety of the gear slipped through her mouth and the mom/calf pair swam off gear free.





*CCS and HIHWNMS personnel work on a very complex entanglement of the whale known as Bounce, off Cape Cod on July 3, 2024. (Credit: Jooke Robbins/Center for Coastal Studies)*

*CCS and HIHWNMS personnel work on a mom/calf pair, where the mother, known as Mudskipper, was seen entangled in Stellwagen Bank National Marine Sanctuary waters on July 8, 2024. (Credit: Emily Kelly/Center for Coastal Studies).*

*HIHWNMS personnel and the CCS team prepare to make a cut on the entangling gear of Mudskipper, first seen entangled in Stellwagen Bank National Marine Sanctuary waters on July 8, 2024. (Credit: Emily Kelly/Center for Coastal Studies)*

### **Renovation Begins on New Pacific Islands Ocean Exploration Center**



The Pacific Islands Region began an exciting new project to establish the Pacific Islands Ocean Exploration Center in downtown Honolulu. This 1,600 square foot collaborative space will highlight the impressive work of PIR sites and offer an accessible venue for hosting meetings with partners. During the week of July 8th, our contractor demolished old infrastructure and painted the walls in preparation for exhibits. Although there is still much to be done before the center opens to the public, we are thrilled to share how "the ocean connects us all."

*Photo of the recently painted Pacific Islands Ocean Exploration Center, located in downtown Honolulu (photo: Sara Wood).*

### **HIHWNMS featured in summer bioacoustics course at the University of New Hampshire**

Between June 23-28, HIHWNMS Research Ecologist Dr. Marc Lammers helped teach the [BioAcoustic Summer School \(SeaBASS\)](#) at the University of New Hampshire. SeaBASS is a bi-annual event that provides the opportunity for graduate students interested in pursuing careers in marine bioacoustics to develop a strong foundation of both marine animal biology and acoustics, and to develop professional relationships within the field. SeaBASS lecturers give half-day seminars on a topic in the field of marine animal bioacoustics in which they are



recognized experts. Dr. Lammers was invited by the organizers to help teach the portion of the course on passive acoustic monitoring (PAM). The PAM course covered a wide range of topics, including soundscape principles, methodology, analysis, practical exercises, and discussions of case studies. The course was well received with very positive evaluations from the participants. Taking part in SeaBASS allowed Dr. Lammers to share his acoustic expertise with the next generation of marine bioacousticians and to network with students, other lecturers, and event sponsors to form new collaborative partnerships.



### **HIHWNMS supports Epic Swim Maui's epic efforts to promote ocean health and safety**

HIHWNMS's Natural Resource Specialist, Ed Lyman, supported Epic Swim Maui's efforts to promote ocean health and safety. Epic Swim Maui is the first expedition swim around the island of Maui to raise awareness of the challenges and threats our oceans are facing. The month-long swim involves the world's top open-water swimmers from 11 countries and 6 continents. The monumental effort and its accompanying documentary feature partners focused on improving the health of our oceans. Ed joined the team onboard one of the support boats as the swimmers swam through sanctuary waters between Olowalu and McGregor Point, Maui. He then joined other scientists for a "Night of Immersion" where he presented on another epic swimmer, the humpback whales, highlighting the sanctuary's efforts to promote healthy oceans and to work with partners to free humpback whales from life-threatening entanglements and gain information to reduce the threat in the future.



*Elite open-water swimmers traverse sanctuary waters as part of Epic Swim Maui's efforts to promote ocean health. (Photo credit: Ed Lyman)*

### **Working Mauka to Makai to Restore the Kula Ahupua'a in South Maui**

HIHW's Sanctuary offices and Visitor Center reside on the coast in Kula Kai (aka Kīhei), and Haleakalā National Park encompasses the summit of the Kula ahupua'a, a land division traditionally managed from the top of the mountains to the sea (mauka to makai). Lands in between include conservation, ranching, residential, and former sugar lands that are being converted to diversified agriculture.



On July 19, DOD staff brought together 20+ landowners, managers, and partners from Kula to highlight the collaborative work we are doing to reduce sediment and fire risk while protecting and restoring native ecosystems and sustainable ranching and agricultural practices. DOD is partially funding this work through their [Readiness and Environmental Protection Integration \(REPI\) Program](#) with the US Space Force's 15th Space Surveillance Squadron which operates the Maui Space

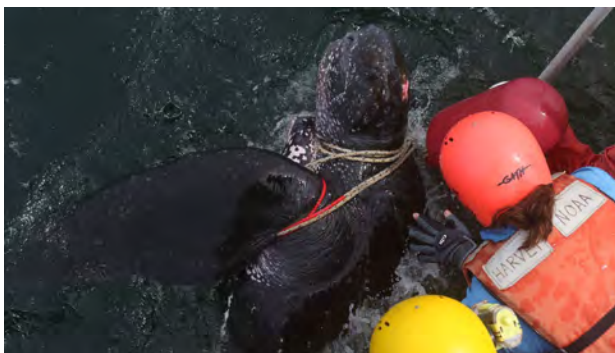
Surveillance Complex at the 10,023 foot-summit of Haleakalā National Park. As the direct recipient of flood waters and sediment at the base of the ahupua'a, HIHWNMS is an enthusiastic supporter of our upland neighbors' efforts.

### **HIHWNMS Personnel Assist in Disentangling Endangered Leatherback Sea Turtles off Cape Cod, Massachusetts**

HIHWNMS's Large Whale Resource Protection and Monitoring Assistant, Maria Harvey, continued to aid the Center for Coastal Studies (CCS) with disentangling efforts throughout the month of July. While Cape Cod is a hot-spot for whale entanglement cases, the Cape also sees numerous entanglements of



endangered leatherback sea turtles during the summer and fall months as they migrate south. Leatherbacks are the largest sea turtle in the world, and are often entangled in the same gear as large whales. Because they cannot drag entangling gear, they become anchored in place.



Before disentangling efforts begin, each animal is measured, scanned for Passive Integrated Transponders (PIT) tags, and tagged if none already exist. Once data collection is complete, the team works to free the turtle. Responders physically unwrap the turtle, aiding in the understanding of entanglement complexity and how the animals

move and react around the gear. CCS and HIHWNMS personnel have disentangled three leatherbacks in the past week. One of these turtles was tagged by New England Aquarium's Dr. Kara Dodge as part of a long-term partnership and study looking at the survivability of entangled leatherbacks after release.

Top photo: Maria Harvey of HIHWNMS looks over the complex entanglement to better understand how the turtle became entangled and how to start the disentanglement process. Photo credit: Center for Coastal Studies, NOAA permit # 50 CFR 222.310.

Bottom photo: Maria Harvey and a CCS team member measure the size of the leatherback's carapace to 150cm. Photo credit: Center for Coastal Studies, NOAA permit # 50 CFR 222.310.

## HIHWNMS News Clips

### [2024: Jessica Kittel PhD '24: Diving into discovery | UMass Dartmouth](#)

UMass Dartmouth... National Marine Sanctuary. It was an incredible experience. We tagged whales with a device that's like a Fitbit to track their movement patterns...

### [Kama'āina receive \\$10 admission for World Ocean Day - Maui Now](#)

Maui Now... National Marine Sanctuary. Additional conservation groups will be on hand for Pacific Whale Foundation's "For Da Keiki" World Ocean Day Education ...

### [Humpback Whales, Hawaiian sanctuary celebrated in Ocean Month - Yahoo](#)

Yahoo-of that is the Hawaiian Islands Humpback Whale National Marine Sanctuary. Its superintendent, Kim Hum, joined Take2 on Friday morning to talk ...

### [Coral Spawning Night at the Maui Ocean Center, July 6](#)

Maui Now... National Marine Sanctuary to conduct its research — the first tests of such kind for Pacific corals. "We plan to return next summer and use ...

### [Hawaii's First Humpback Whale Sighting of the Season Captured ...](#)

MSN-To his astonishment, it turned out to be Hawaii's first humpback whale sighting of the season, as confirmed by NOAA's National Marine Sanctuary.

### [Maui Nui Marine Resource Council hosts free in-person talk 'Sonic Youth](#)

Maui Now... National Marine Sanctuary, Hawaii's Division of Aquatic Resources and The Nature Conservancy) that are testing the impacts of different sound ...

### [Rare off-season humpback sighting not just exciting, but provides opportunity to learn more](#)

Kauai Now-Three experts — 2 from the University of Hawai'i at Hilo and another from the Hawaiian Islands Humpback Whale National Marine Sanctuary ...

### ['Ambassadors of our oceans': Rare off-season humpback sighting not just exciting, but](#)

Big Island Now-Marc Lammers, research ecologist with the Hawaiian Islands Humpback Whale National Marine Sanctuary, said humpbacks can linger in Hawai'i waters even ...