FINAL REPORT

JUNE 2023

# SUMMER MARINE MAMMAL INTENSIVE LEARNING EXPERIENCE (SMMILE)

The Summer Marine Mammal Intensive Learning Experience (SMMILE) is a free 10-day immersive course hosted by the Marine Mammal Research Program (MMRP) at the Hawai'i Institute of Marine Biology. SMMILE provides an opportunity for Hawaiʻi high school students to learn about marine mammal science, marine protected areas (MPAs), and conservation efforts. The motivation behind SMMILE is to increase the representation of students from historically marginalized communities (HMC) in the field of marine mammalogy, particularly Native Hawaiian/Pacific Islander students. SMMILE was designed to expose students to marine mammal science in an active learning environment through field trips, engaging lectures, hands-on training, workshops/discussions, and peer-bonding activities.

SMMILE was offered in June of 2022 and 2023. A total of 21 students participated representing 16 different high schools from Oʻahu, Kauaʻi, Maui, Molokaʻi, and Hawaiʻi. Highlights of the program included boat-based marine mammal surveys along the Waiʻanae Coast where students sighted multiple marine mammal species, a hike to Ka'ena Point to observe endangered Hawaiian monk seals, and an in-water experience with bottlenose dolphins at Dolphin Quest Oʻahu.

SMMILE is funded by the Marine Mammal Commission, the National Marine Sanctuary Foundation, and the University of Hawaiʻi Mānoa. We are excited to offer SMMILE again in 2024 and 2025 through a National Oceanic and Atmospheric Administration Bay Watershed Education and Training Grant (NOAA B-WET).

**PREPARED AND PRESENTED BY**

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**PROJECT PRINCIPLE INVESTIGATOR**

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RESEARCHER, MARINE MAMMAL RESEARCH PROGRAM

MARINE MAMMAL RESEARCH PROGRAM
UNIVERSITY of HAWAI'I

# OUR GOALS AND OBJECTIVES

## GOAL 1

### PROVIDE A DYNAMIC LEARNING ENVIRONMENT FOR HAWAIʻI HIGH SCHOOL STUDENTS TO EXPLORE THE MULTI-DISCIPLINARY CONNECTIONS BETWEEN MARINE PROTECTED AREAS, MARINE MAMMAL SCIENCE, AND CONSERVATION.

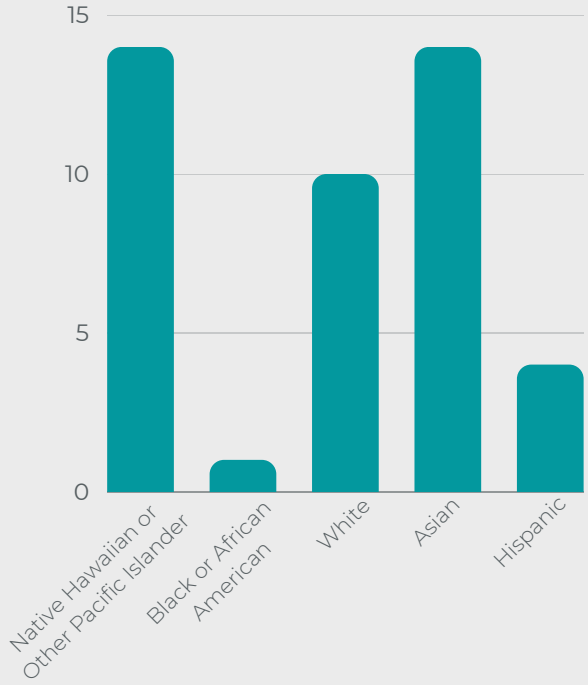
The students learned about marine mammal science by participating in 14 lectures, seven field trips, and numerous hands-on training activities. Students learned about MPAs through lectures about the Hawaiian Islands Humpback Whale National Marine Sanctuary and the Papahānaumokuākea Marine National Monument. Conservation efforts were presented by partners from the National Oceanic and Atmospheric Administration, Hawaiʻi Marine Animal Response, and Ke Kai Ola.

67% NATIVE HAWAIIAN/OTHER PACIFIC ISLANDER
81% HMC STUDENTS

## GOAL 2

### PROMOTE DIVERSITY AND INCLUSIVITY IN SCIENCE

Students identified as...




## GOAL 3

### FACILITATE NETWORKING WITH MEMBERS OF THE MARINE MAMMAL COMMUNITY

Students had the opportunity to meet and network with over 26 members of the marine mammal community, at all career stages, through a mix of virtual and in-person lectures and interactive activities.

## GOAL 4

### ENCOURAGE STUDENTS TO PURSUE HIGHER EDUCATION

SMMILE students met many doctoral and master students in the field of marine biology who provided their perspective on attending college. Seven of eight seniors from the 2022 cohort applied and were accepted to college and begin this fall.

## GOAL 5

### EXPOSE STUDENTS TO INTERNSHIP AND EMPLOYMENT OPPORTUNITIES

We encouraged our speakers to highlight internship opportunities at their respective organizations. One student from the 2022 cohort is currently interning with our NOAA B-WET partners at the Heʻeia National Estuarine Research Reserve through the American Fisheries Society.

## GOAL 6

### EXPLORE THE ROLE OF INDIGENOUS LOCAL KNOWLEDGE AND REFLECT ON CULTURAL CONNECTION AND SENSE OF PLACE

The students learned about the Papahānaumokuākea Marine National Monument and the local researchers and community members that are utilizing traditional knowledge systems to conduct innovative research in the Northwestern Hawaiian Islands. Students also learned about Polynesian voyaging and wayfinding from Kānehūnāmoku Voyaging Academy and Kaʻiulani Murphy, a Hōkūleʻa crew member. We visited Kākoʻo ʻŌiwi to learn about the ahupuaʻa system and to assist with harvesting kalo.

# COURSE COMPONENTS

## CLASSROOM-BASED CONTENT

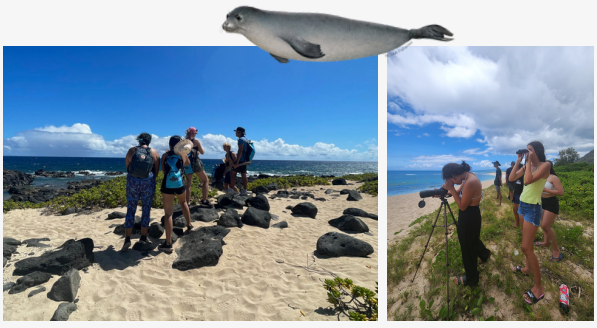
**Topics included:** acoustics (communication and hearing), unmanned aerial vehicles, tagging, population studies, photo identification, behavior, stranding/response, and conservation and management

## FIELD TRIPS

### BOAT-BASED MARINE MAMMAL SURVEYS

### DOLPHIN QUEST OʻAHU

### KĀKOʻO ʻŌIWI



### KAʻENA POINT STATE PARK

# TRAINING

**HANDS-ON EXPERIENCE IN THE FOLLOWING:**

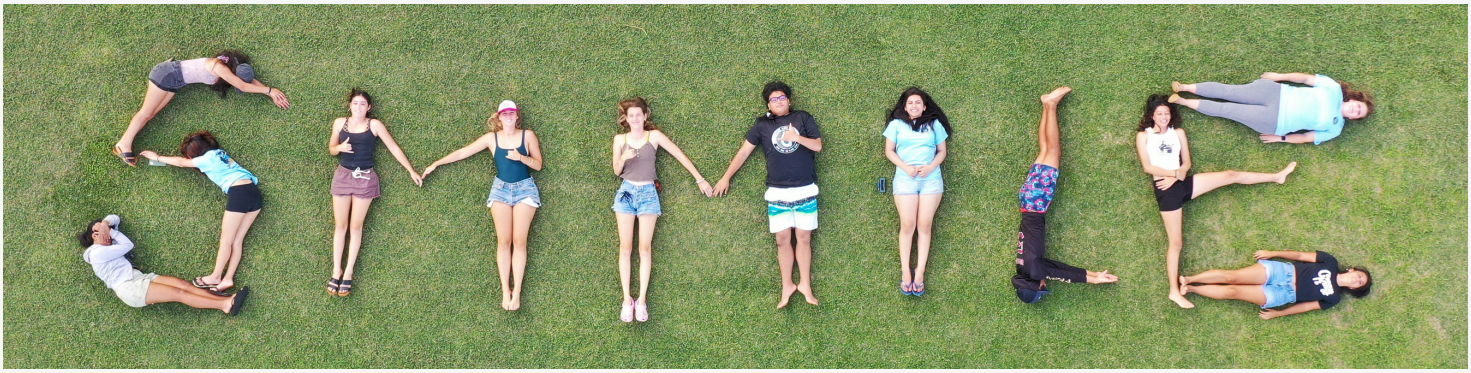
- Flying an Unmanned Aerial Vehicle (UAV)
- Humpback Whale Fluke Matching
- Spinner Dolphin Dorsal Fin Matching
- DSLR Cameras
- UAV Video Analysis
- 3D Laser Scanner/Printer
- Underwater Acoustic Analysis
- Hydrophone Deployments
- Computer Programming
- Tagging & Tag Retrieval





# WORKSHOPS AND PEER BONDING EXERCISES

We led workshops/discussions on internships and volunteer opportunities on all Main Hawaiian Islands, the pros and cons of higher education, marine mammals in human-care, and how the students can share the information they learned at SMMILE with their communities. Students built interpersonal relationships through "Get to Know You" activities, icebreakers, and team- building exercises.



## FUNDERS & PARTNERS

University of Hawai'i

Hawai'i Institute of Marine Biology

Marine Mammal Commission

The Next Swell

NOAA

The Marine Mammal Center

Cascadia Research Collective

National Marine Sanctuary Foundation

## 2022 COHORT

## 2023 COHORT

## IN THE MEDIA

SMMILE was featured in four local news stories and will be featured in Hawai'i Sea Grant's Voice of the Sea documentary this fall.

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**FOR MORE INFORMATION, VISIT:**
**WWW.MMRPHAWAII.ORG/SMMILE**