

## 2023 Ni'ihau Monk Seal Survey Summary Report

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Two complete island-wide Hawaiian monk seal surveys were conducted at Ni'ihau in 2023. These surveys were funded by the U.S. Navy and carried out by staff from Naval Facilities Engineering Command Hawaii (NAVFAC), State of Hawaii Division of Aquatic Resources (DAR) and Ni'ihau Ranch following the Hawaiian Monk Seal Research Program (HMSRP) survey protocols. Surveys of Ni'ihau were conducted on June 15 and September 27.

Survey teams flew from Kaua'i to Ni'ihau via helicopter. The island was surveyed via foot, vehicle, and helicopter with Ni'ihau Ranch personnel serving as guides ([Figure 1](#)). The majority of the island's eastern coastline was surveyed from helicopter during the inbound flight from Kaua'i. The remainder of the island was split into two sections and covered on foot and by vehicle.

All seals observed were recorded on a data sheet and photographed; their locations were recorded using GPS or by marking on a paper map. All raw data and photos were submitted to the HMSRP for review. HMSRP staff reviewed the data and photos and when possible identified individual seals based on flipper tags and natural marks.

A total of 81 seals were counted during the June survey and 94 seals were counted during the September survey ([Tables 1 and 2](#)). Seals observed swimming offshore or along the shoreline were excluded from the overall total counts following HMSRP protocols. This practice avoids double counting seals that are on the move as they may be encountered multiple times along the survey. A total of 17 pups were documented as being born at Ni'ihau in the 2023 calendar year. This included both nursing (n=1) and weaned pups (n=16). To avoid double counting pups seen on both surveys, only the pups observed on the September survey were counted in the pup total. The later date was chosen for the total pup count because this survey had a greater number of total pups and it would capture the nursing pups observed in June that would have been weaned by September ([Tables 2](#)). In addition to the Ni'ihau born pups, a weaned pup from Kaua'i was sighted during the September survey. Sixteen previously identified seals were observed on Ni'ihau during the 2023 surveys ([Table 3](#)). Six of these seals were also sighted at other islands in 2023, including one seal that was observed at Nihoa Island. The other 11 seals were only sighted at Ni'ihau. Only one uniquely identifiable seal was sighted on both Ni'ihau surveys in 2023.

Seal highlights from the 2023 Ni'ihau survey effort include:

- The September survey yielded the second highest Ni'ihau monk seal count on record with a count of 94 seals. The highest Ni'ihau monk seal count was 102 seals documented in September 2022.
- The two weaned pups that were tagged at Ni'ihau in September 2022 (NQ00 and NQ02) were both resighted on surveys in 2023.
- Observers resighted seal NJ00 – a Ni'ihau born seal last sighted in 2017 as a weaned pup at Ni'ihau.
- Observers resighted seal R354 – an adult male seal last sighted in 2018 at Ni'ihau.
- Observers resighted seal R365 – an adult male seal last sighted in 2018 at Nihoa. This seal was first identified as a weaned pup at Ni'ihau in 2014.



Figure 1. Coastal areas covered during the 2023 Ni'ihau monk seal surveys. Line colors indicate distinct island sections surveyed by separate teams (north, southwest, and east). The green and red tracks were surveyed by foot and vehicle and the yellow track was surveyed by helicopter. The exact begin and end points for each section may have varied slightly for each survey.

Table 1. Number of monk seals observed during 2023 Ni'ihau surveys sorted by island section.

<b>Island Section</b>	<b>June 2022</b>	<b>Sept. 2022</b>
North	36	42
Southwest	29	38
East	16	14
<b>Total</b>	<b>81</b>	<b>94</b>

Table 2. Number of monk seals observed during 2023 Ni'ihau surveys sorted by size class.

<b>Size Class</b>	<b>June 2022</b>	<b>Sept. 2022</b>
Adult	51	44
Sub-adult	6	15
Juvenile	8	16
Unknown	1	1
Nursing Pup	8	1
Weaned Pup	7	17
<b>Total</b>	<b>81</b>	<b>94</b>

Table 3. Previously identified monk seals sighted during 2023 Ni‘ihau surveys.

Seal ID	Size Class	Sex	June 2023	Sept. 2023	Other Islands in 2023
NH00	Adult	Female	X		
NJ00	Adult	Female	X	X	
NQ00	Juvenile	Male		X	
NQ02	Juvenile	Male	X		
R310	Adult	Male	X		
R339	Adult	Male		X	Kaua‘i
R344	Adult	Female		X	
R354	Adult	Male	X		
R365	Adult	Male		X	
R373	Adult	Male	X		
R378	Sub-adult	Male		X	
R3CU	Adult	Male		X	Kaua‘i
R604	Adult	Female	X		Kaua‘i, O‘ahu
R955	Adult	Female	X	X	
R967	Sub-adult	Unknown		X	Nihoa
RS30	Weaned pup	Male		X	Kaua‘i

#### DATA CITATIONS

Johanos TC. 2023a. Hawaiian Monk Seal Research Program Hawaiian monk seal survey data collected in the main Hawaiian Islands, 2010–2023. US National Oceanographic Data Center. <https://www.fisheries.noaa.gov/inport/item/5676>

Johanos TC. 2023b. Hawaiian Monk Seal Research Program Hawaiian monk seal master identification records (annual) collected in the Hawaiian Archipelago, 1962–2023. US National Oceanographic Data Center. <https://www.fisheries.noaa.gov/inport/item/12939>

Johanos TC. 2023c. Hawaiian Monk Seal Research Program Hawaiian monk seal master identification records (seal) collected in the Hawaiian Archipelago, 1962–2023. US National Oceanographic Data Center. <https://www.fisheries.noaa.gov/inport/item/5677>