



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
 Pacific Islands Fisheries Science Center
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PROJECT REPORT

VESSEL: NOAA Ship *Oscar Elton Sette*, Project SE-19-03

PROJECT PERIOD: May 15, 2019–June 10, 2019

AREA OF OPERATION: Papahānaumokuākea Marine National Monument and main Hawaiian Islands

TYPE OF OPERATION: PSD Field Camp Deployment

ITINERARY:

| Date | Location |
|---------|--------------|
| 5/15/19 | Honolulu |
| 5/16/19 | Ni'ihau |
| 5/17/19 | Nihoa |
| 5/18/19 | Mokumanamana |
| 5/19/19 | FFS |
| 5/20/19 | FFS |
| 5/21/19 | Mokumanamana |
| 5/22/19 | transit |
| 5/23/19 | HNL |
| 5/24/19 | Kona |
| 5/25/19 | transit |
| 5/26/19 | transit |
| 5/27/19 | transit |
| 5/28/19 | Laysan |

| Date | Location |
|---------|------------------|
| 5/29/19 | Lisianski |
| 5/30/19 | Pearl and Hermes |
| 5/31/19 | Midway |
| 6/1/19 | Midway |
| 6/2/19 | Kure |
| 6/3/19 | Pearl and Hermes |
| 6/4/19 | Lisianski |
| 6/5/19 | Laysan |
| 6/6/19 | transit |
| 6/7/19 | FFS |
| 6/8/19 | Mokumanamana |
| 6/9/19 | Nihoa |
| 6/10/19 | Honolulu |



- 15 May Pearl Harbor
Embarked 19: Barlow, Bull, Chauvin, Collins, Coppenrath, Cox, Crawford, Golden, Henderson, Kaleel, Kerschner, Kikiloi, Kurtz, McAtee, Mercer, Michael, Ronco, Sullivan, Yahn.
Afternoon departure to Ni'ihau.
Departed by 1300.
- 16 May Ni'ihau
Morning arrival, commenced small boat operations in time to land the shore survey party at Ni'ihau Beach no later than 0745.
Boat operations: (early launch requested) SE-2 transported ~ 7 survey staff to Ni'ihau for full-day survey, then transported 2–4 survey staff to survey Lehua Island.
- 17 May Nihoa
Morning arrival at Nihoa Island.
Boat operations: Launched SE-2 to deploy 6 personnel to conduct monk seal survey, then 3 personnel to conduct interior survey and survey of west ledge.
Afternoon (approx. 1630) recovered shore party, secured operations, departed to Mokumanamana Island.
- 18 May Mokumanamana: Morning arrival at Mokumanamana Island.
Boat operations: Launched SE-2 to deploy 3 personnel to conduct monk seal survey. High swell prevented scientists from landing ashore.
Mid-morning secured operations, departed to French Frigate Shoals.
Filled fresh water jugs (200 for FFS).
- 19 May French Frigate Shoals: Morning arrival at French Frigate Shoals.
Boat Operations: Launched SE-2, SE-4, and *Steel Toe* to deploy seal and turtle camp teams (5 people) along with shore party (9 people) to Tern Island to set up camp. Offloaded equipment and supplies, including pelicans, buckets, 5 pallet tubs, one 17-ft Boston Whaler (*Montauk*) and one 6-m RHIB (*Iwa*), 8 bins frozen bait, up to 30 tanks of propane and 200 5-gal water jugs. Deployed shore party to work on island. Afternoon (approximately 1630) recovered shore party, secured operations. Disembarked 5: Bull, Coppenrath, Kerschner, McAtee, Yahn.
- 20 May French Frigate Shoals: Continuation of ops at FFS.
Boat operations: Launched SE-2, SE-4, and *Steel Toe* to continue transporting camp gear as necessary. Deployed shore party to work on island (9 people). Afternoon (approximately 1630) recovered shore party, secure operations, departed to Pearl Harbor. Embarked 2: Link, Murakawa

- 21 May Mokumanamana: Morning arrival at Mokumanamana.
Boat operations: Launched SE-2 to deploy 3 personnel to conduct monk seal survey. Mid-morning secured operations, departed to Pearl Harbor.
- 22 May Transited
- 23 May Pearl Harbor: Morning arrival at Pearl Harbor. Offload gear and debris. Load gear for other camps including tent poles, propane, buckets, pelicans, and other small items. Disembarked 8: Collins, Crawford, Golden, Henderson, Kikiloi, Kurtz, Mercer, Murakawa. Embarked 10: Morrison, Kaufman, Gonzalez, Mino, Bayless, Lindsey, Reininger, Robinson, Wilhelm, Becker. Afternoon (approximately 1300) departed to Kona
- 24 May Kona: Morning arrival at Honokohau Harbor.
Boat operations: 6:45 Launched SE-2 and *Steel Toe* to meet Kona team and pick up rehab seals on shore in Honokohau Harbor to be loaded onto the NOAA Ship *Oscar Elton Sette*. Likely 2 runs needed. Embarked 2: Barbieri, Connolly. Secured operations by 7:30 and departed to Laysan.
- 25 May Transited
- 26 May Transited
- 27 May Transited
Filled fresh water jugs en route (100) for LAY).
- 28 May Laysan: Morning arrival at Laysan Island.
Boat operations: Launched SE-2, SE-4, and *Steel Toe* to deploy seal camp teams (4 people) along with shore party (11 people) to Laysan to set up camp. Offloaded equipment and supplies, including 4 pallet tubs, buckets, propane, pelicans, and 100 5-gal water jugs. If time allowed, deployed shore party to conduct instrumentation and health assessment of seals. Disembarked 4: Becker, Cox, Kaleel, Morrison. Afternoon (approximately 1630) recovered shore party, secured operations, departed to Lisianski Island. Filled fresh water jugs en route (70 for LIS).
- 29 May Lisianski: Morning arrival at Lisianski Island.
Boat operations: Launched SE-2, SE-4, and *Steel Toe*. Deployed seal camp teams (2 people) along with shore party (11 people) to Lisianski to set up camp. Offloaded equipment and supplies, including 4 pallet tubs, buckets, pelicans, propane, and 70 5-gal water jugs. If time allowed, deployed shore party to conduct instrumentation and health assessment of seals. Disembarked 2: Kaufman, Michael. Afternoon (approximately 1630) recovered shore party, secured operations, departed to PHR. Filled fresh water jugs en route (120 for PHR).

- 30 May PHR: Morning arrival at PHR.
 Boat operations: Launched SE-2, SE-4, and *Steel Toe* to deploy seal camp teams (4 people) along with shore party (6 people) to Southeast Island to set up camp. Offloaded equipment and supplies, including pelicans, buckets of supplies, 4 pallet tubs, two 19-ft Zodiac inflatables, up to ten 55-gallon drums of gasoline, propane and 120 5-gal water jugs. Disembarked 4: Chauvin, Gonzalez, Mino, and Ronco. Afternoon (approximately 1630) recovered shore party, secure operations, departed to Midway.
- 31 May Midway: Morning arrival at Midway (moored for ship repair).
 Boat operations: Launched *Steel Toe* for seal survey (4 people) on Eastern and Spit Islands. Six people walked off ship for seal survey of Seal Island. Ship remained at pier on Sand Island overnight.
- 1 June Midway: Continuation of ops and ship repair at Midway.
 Boat Operations: Launched *Steel Toe* for seal survey (7 people) on Eastern and Spit Islands. Three people walked off ship for seal survey of Sand Island. Embark 2: Anderson, Gibson. Disembarked 1: Link. Afternoon (approximately 1630) recovered shore party, secured operations, departed to Kure Atoll. Filled fresh water jugs en route (70 for KUR).
- 2 June Kure: Morning arrival at Kure Atoll.
 Boat operations: Used SE-2, SE-4, and *Steel Toe* to deploy seal camp team (2 people) along with shore party (9 people) to Green Island to set up camp. Offloaded equipment and supplies, including 2 pallet tubs, buckets, pelicans, 1 tank of propane, and seventy 5-gal water jugs. Picked up empty water jugs from DLNR camp and filled onboard, ~ 80 (eighty) 5-gallon jugs. Loaded 8 bagsters of marine debris. Used small boat to conduct atoll survey for seals. Disembarked 2: Anderson, Gibson. Afternoon (approximately 1630) recovered shore party, secured operations, departed to Pearl and Hermes Reef.
- 3 June PHR: Morning arrival at PHR:
 Boat operations: Launched SE-4 and *Steel Toe* to deliver additional camp items and survey for seals in need of rehabilitation. Loaded 3 bagsters of marine debris. Afternoon: recovered shore party, secured operations, departed to Lisianski.
- 4 June Lisianski: Morning arrival at Lisianski.
 Boat operations: Launched SE-2 and *Steel Toe* to deliver additional camp items and survey for seals in need of rehabilitation. Loaded 7 bagsters of marine debris. Afternoon: recovered shore party, secured operations, departed to Laysan.

- 5 June Laysan: Morning arrival at Laysan.
Boat operations: Launched SE-2 and Steel Toe to deliver additional camp items and survey for seals in need of rehabilitation. Loaded 3 bagsters of marine debris.
Embarked 1: Becker Afternoon: Recovered shore party, secured operations, departed to FFS.
- 6 June Transited
- 7 June FFS: Morning arrival at FFS.
Boat operations: Launched SE-4 and *Steel Toe* to deliver additional camp items and survey for seals in need of rehabilitation. Loaded 6 bagsters of marine debris.
Embarked 1: Bull. Afternoon: Recovered shore party, secured operations, departed to Mokumanamana.
- 8 June Mokumanamana: Mid-morning arrival at Mokumanamana. Boat operations: Launch SE-2 to deploy 4 personnel to conduct monk seal survey. Midday recover shore party, secure operations, depart to Nihoa Island.
- 9 June Nihoa: Morning arrival at Nihoa.
Boat operations: Launch SE-2 to deploy 5 personnel to conduct monk seal survey. Midday recover shore party, secure operations, depart to Pearl Harbor.
- 10 June Pearl Harbor. Disembark 11: Barlow, Bayless, Becker, Bull, Barbieri, Connolly, Lindsey, Reininger, Robinson, Sullivan, Wilhelm.
End of Project.

MISSIONS AND RESULTS:

- A. Deploy field camps at French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Reef and Kure Atoll.
 1. Successful at all islands.
- B. Conduct monk seal surveys at Midway Atoll, Ni'ihau, Nihoa, and Mokumanamana.
 1. Successful at all islands including instruction from an OHA representative as to traversing Mokumanamana for access to the East ledge during seal survey when weather only allows landing at the saddle. Two days were spent surveying Midway because of ship repair.
- C. Instrumentation of seals with satellite tags and camera systems as appropriate for foraging study.
 1. Successful instrumentation of both Ke Kai Ola rehabilitated seals that were released on Laysan and one non-rehabilitated Laysan juvenile for comparison. Also instrumented a camera system on a juvenile at French Frigate Shoals.

D. Pick up seals in need of rehabilitation for transport to Ke Kai Ola monk seal hospital in Kona, Hawaii.

1. All islands were searched and candidates were assessed, but no seals were deemed necessary to transport for rehabilitation. Success.

E. Opportunistic CTD casts.

1. Successful at 7 of 10 CTD cast locations. Time did not permit stopping at 3 locations.

SCIENTIFIC PERSONNEL:

| Name (Last, First) | Title | Date Aboard | Date Disembark | Gender | Affiliation | Nationality |
|-----------------------|-----------------|------------------------|-------------------------|--------|-------------|-------------|
| Coppenrath, Christina | Scientist | 5/15/2019 | 5/19/2019 | F | JIMAR | USA |
| Kerschner, Leah | Scientist | 5/15/2019 | 5/19/2019 | F | JIMAR | USA |
| McAtee, Carrie | Scientist | 5/15/2019 | 5/19/2019 | F | JIMAR | USA |
| Yahn, Shelby | Scientist | 5/15/2019 | 5/19/2019 | F | JIMAR | USA |
| Bull, Lindsay | Scientist | 5/15/2019 and 6/7/2019 | 5/19/2019 and 6/10/2019 | F | JIMAR | USA |
| Collins, Andy | Scientist | 5/15/2019 | 5/23/2019 | M | NOAA | USA |
| Crawford, Jennifer | Scientist | 5/15/2019 | 5/23/2019 | F | NOAA | USA |
| Golden, Dawn | Scientist | 5/15/2019 | 5/23/2019 | F | NOAA | USA |
| Henderson, John | Scientist | 5/15/2019 | 5/23/2019 | M | NOAA | USA |
| Kikilo, Kekuewa | Scientist | 5/15/2019 | 5/23/2019 | M | OHA | USA |
| Kurtz, Adam | Scientist | 5/15/2019 | 5/23/2019 | M | NOAA | USA |
| Mercer, Tracy | Scientist | 5/15/2019 | 5/23/2019 | F | JIMAR | USA |
| Cox, Marjorie | Scientist | 5/15/2019 | 5/28/2019 | F | JIMAR | USA |
| Kaleel, Kristi | Scientist | 5/15/2019 | 5/28/2019 | F | JIMAR | USA |
| Michael, Eli | Scientist | 5/15/2019 | 5/29/2019 | M | JIMAR | USA |
| Chauvin, Matthew | Scientist | 5/15/2019 | 5/30/2019 | M | JIMAR | USA |
| Ronco, Hope | Scientist | 5/15/2019 | 5/30/2019 | F | JIMAR | USA |
| Barlow, James | Boat coxswain | 5/15/2019 | 6/10/2019 | M | NOAA | USA |
| Sullivan, Mark | Chief Scientist | 5/15/2019 | 6/10/2019 | M | JIMAR | USA |
| Link, Dan | Scientist | 5/20/2019 | 6/1/2019 | M | FWS | USA |
| Murakawa, Shawn | Scientist | 5/20/2019 | 5/23/2019 | F | NOAA | USA |

| Name (Last, First) | Title | Date Aboard | Date Disembark | Gender | Affiliation | Nationality |
|--------------------|--------------|------------------------|-------------------------|--------|-------------|-------------|
| Morrison, Margaret | Scientist | 5/23/2019 | 5/28/2019 | F | JIMAR | USA |
| Becker, Brenda | Scientist | 5/23/2019 and 6/5/2019 | 5/28/2019 and 6/10/2019 | F | NOAA | USA |
| Kaufman, Angie | Scientist | 5/23/2019 | 5/29/2019 | F | JIMAR | USA |
| Gonzalez, Alexa | Scientist | 5/23/2019 | 5/30/2019 | F | JIMAR | USA |
| Mino, Paige | Scientist | 5/23/2019 | 5/30/2019 | F | JIMAR | USA |
| Barbieri, Michelle | Veterinarian | 5/24/2019 | 6/10/2019 | F | NOAA | USA |
| Bayless, Ali | Scientist | 5/23/2019 | 6/10/2019 | F | NOAA | USA |
| Lindsey, Edwin | Scientist | 5/23/2019 | 6/10/2019 | M | OHA | USA |
| Reininger, Alex | Scientist | 5/23/2019 | 6/10/2019 | F | JIMAR | USA |
| Robinson, Stacie | Scientist | 5/23/2019 | 6/10/2019 | F | NOAA | USA |
| Wilhelm, Keoni | Scientist | 5/23/2019 | 6/10/2019 | M | KS | USA |
| Connolly, Evan | Scientist | 5/24/2019 | 6/10/2019 | F | TMMC | USA |
| Anderson, Katie | Scientist | 6/1/2019 | 6/2/2019 | F | JIMAR | USA |
| Gibson, Alix | Scientist | 6/1/2019 | 6/2/2019 | F | JIMAR | USA |

Submitted by: SULLIVAN.MARK.S.1 Digitally signed by SULLIVAN.MARK.S.1
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Attachments: None