



NOAA
FISHERIES

SPECIES *in the* SPOTLIGHT

Priority Actions: 2016-2020

Hawaiian Monk Seal

Neomonachus schauinslandi



SPECIES SPOTLIGHT BACKGROUND

The 5-year action plan is part of a strategy to marshal resources on species listed under the Endangered Species Act of 1973 (ESA) for which immediate, targeted efforts are vital for stabilizing their populations and preventing their extinction. Eight species were identified by the National Marine Fisheries Service (NMFS) as among the most at-risk of extinction:

- Atlantic Salmon Gulf of Maine Distinct Population Segment (DPS)
- Central California Coast Coho Evolutionarily Significant Unit (ESU)
- Cook Inlet Beluga Whale DPS
- Hawaiian Monk Seal
- Pacific Leatherback Sea Turtle
- Sacramento River Winter-run Chinook ESU
- Southern Resident Killer Whale DPS
- White Abalone

These species were identified as among the most at-risk of extinction based on three criteria (1) endangered listing, (2) declining populations, and (3) are considered a recovery priority #1¹. We know the threats facing these species and understand the management actions we can take that will have a high probability of success. The 5-year action plan builds upon existing recovery or conservation plans and details the focused efforts needed over the next 5 years to reduce threats and stabilize population declines. We will engage our partners in the public and private sectors in actions they can take to support this important effort. We will report on our progress through the Biennial Report to Congress and post updates on our website: <http://www.nmfs.noaa.gov/pr/>.

This strategy will guide agency actions where we have the discretion to make critical investments to safeguard these most endangered species. The strategy will not divert resources away from the important and continued efforts to support all ESA-listed species under our authority. Many of our species have long-standing conservation programs supported by multiple partners. We remain committed to those programs. This action plan is designed to highlight the actions that can be taken by us, other federal and state resource agencies, environmental organizations, and other partners to turn the trend around for this species from a declining trajectory to a trajectory towards recovery.

¹ Priority #1 is defined as a species whose extinction is almost certain in the immediate future because of a rapid population decline or habitat destruction, whose limiting factors and threats are well understood and the needed management actions are known and have a high probability of success, and is a species that is in conflict with construction or other developmental projects or other forms of economic activity. NMFS Endangered and Threatened Listing Recovery Guidelines (55 FR 24296, June 15, 1990).

HAWAIIAN MONK SEAL STATUS

The Hawaiian monk seal is one of NMFS' eight priority species because there are only about 1,100 Hawaiian monk seals left in the world, and they have been in a continuous decline since at least the 1950s (Carretta et al. 2014). The Hawaiian monk seal is the second-most endangered pinniped in the world and the last surviving species in its genus. Hawaiian monk seals occur only in the Hawaiian Islands Archipelago, which stretches 1,500 miles from Hawaii Island to Kure Atoll (Figure 1). Hawaiian monk seals are the only marine mammal species whose recovery and management falls entirely under the jurisdiction of the United States.

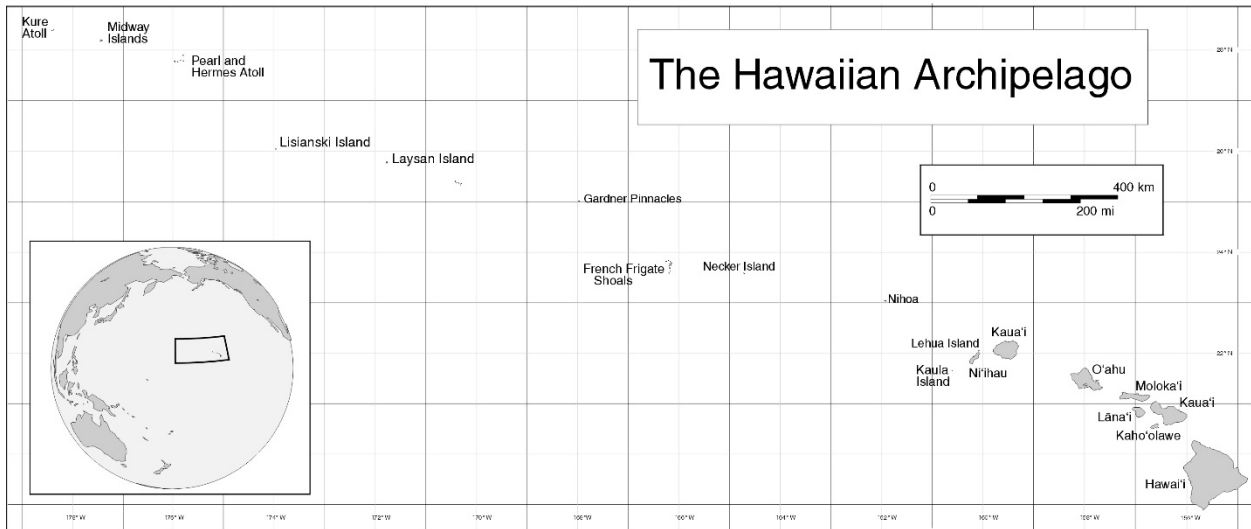


Figure 1. Hawaiian monk seals are native to the Hawaiian Islands Archipelago and found nowhere else in the world. Monk seals move freely through the islands including the inhabited main Hawaiian Islands and the Northwestern Hawaiian Islands (starting at Nihoa).

HAWAIIAN MONK SEAL KEY CONSERVATION EFFORTS/CHALLENGES

Although more work remains before the species recovers, NMFS and our partners have made significant headway in reducing the extinction risk of Hawaiian monk seals. We are currently working across the archipelago to address the population decline. The majority of the monk seal population inhabits the Northwestern Hawaiian Islands, where we have focused intensive conservation and research efforts for over 30 years (Lowry et al. 2011). Recovery interventions have proven successful thus far: the current population is up to 30% larger than it would be without these efforts and the monk seal decline in the Northwestern Hawaiian Islands has slowed by 8-fold (Harting et al. 2014).

NMFS is now prepared with the plans, permits, and key stakeholder support to execute a bold new recovery initiative that is expected to stabilize or reverse the species decline within 5-10 years. In 2014, we received a new ESA-Marine Mammal Protection Act (MMPA) permit for these new and expanded recovery actions (NMFS 2014). The agency also recently reorganized the Monk Seal Recovery Team to assist with implementation, and with their help, released a Main Hawaiian Islands Monk Seal Management Plan (NMFS 2015) in January 2016.

Hawaiian monk seal recovery still faces challenges that will take additional resources and commitment to overcome. Recovering a species on the brink of extinction is not an easy task, especially factoring in the logistics of working across an expansive and remote archipelago spanning thousands of miles. Biologists must be present in those remote areas to intervene and save seals' lives, as well as to research and monitor the population. The growth of a small population of monk seals in the main Hawaiian Islands, while encouraging, has also meant increasing numbers of interactions with fisheries and other ocean users. Monk seals have been victims of intentional killings. The deaths of these seals, including a pregnant female, jeopardize recovery and are a clarion call for enhanced local community engagement in the conservation and recovery of this endemic Hawaiian marine mammal. To combat misinformation and misconceptions, we are actively engaging local stakeholders and working with communities to build capacity, ownership, knowledge, and trust. Through strong partnerships we can develop effective solutions to the challenges of monk seal recovery.

KEY ACTIONS NEEDED 2016-2020

NMFS is currently undertaking a host of activities, and the key actions that follow are priorities for the next five years that would benefit the most from collaboration. They represent a small subset of the recovery actions identified in the August 2007 recovery plan and the January 2016 Main Hawaiian Islands Monk Seal Management Plan, and represent actions NMFS and partners can take in the next five years to promote recovery of the species. The partners identified below have indicated their interest in helping achieve the action, but are not committed to a specific activity or commitment of resources. This list is not comprehensive of all potential partners, and we welcome partnering with others not identified within this plan.

Improve Survival of Juvenile and Adult Female Seals in the Northwestern Hawaiian Islands

Description and Background: Monk seal recovery is moving into a new phase in the Northwestern Hawaiian Islands that increases existing efforts of our recovery program and partners, and implements new survival-enhancing tools. These tools include the following actions, amongst others:

- Translocating juvenile seals
- Mitigating aggression towards females and pups by male monk seals
- Removing terrestrial and marine debris in partnership with local non-governmental organizations
- Rehabilitating young seals at The Marine Mammal Center’s state-of-the-art monk seal hospital, Ke Kai Ola

However, to continue these successful and impactful activities we must return and maintain Northwestern Hawaiian Islands Monk Seal Assessment and Recovery Camps to optimal historical levels. By being present in the Northwestern Hawaiian Islands for sufficient amounts of time, we maximize the number of seals benefiting from interventions and assure robust data collection for planning, implementing, and assessing recovery activities. Continued and strategic investment in these recovery actions will have the largest impact on stabilizing the species. (Videos about a recent example of this action and its potential impacts and success: <https://vimeo.com/album/3330181>).

Expected Benefits to the Species: This action will directly save the lives of young monk seals (particularly juvenile females) and increase the number of reproductive females in the population. In the short-term we will increase the survival of young female seals. In the medium-term we stabilize age/sex structures of each population, which have suffered from decades of poor juvenile survival. In the long-term this stability and increased reproductive potential further slows and potentially reverses the population decline within a decade.

Source:

[*Recovery Plan for the Hawaiian Monk Seal \(NMFS 2007\)*](#)

Recovery Strategy Key Action #1: Improve survivorship of females of all ages, particularly juveniles and yearlings, in the sub-populations of the Northwestern Hawaiian Islands.

Recovery Strategy Key Action #2: Maintain the extensive field presence during the breeding season in the Northwestern Hawaiian Islands. Field presence is critical not just to the monitoring and research efforts, but also to carry out the active management and conservation of Hawaiian monk seal sub-population in these areas.”

- Recovery Action 1: Investigate and mitigate factors affecting food limitation (see 1.7, 1.8)
- Recovery Action 2: Prevent entanglement of monk seals (see 2.1)
- Recovery Action 3: Prevent introduction and spread of infectious disease (see 3.2, 3.2.3, 3.2.4, 3.3)
- Recovery Action 7: Reduce male aggression toward pups/immature seals and adult females (see 7.1.2, 7.2, 7.3)
- Recovery Action 12: Continue population monitoring and research (see 12.1, 12.2.3, 12.2.4, 12.2.5, 12.2.7, 12.3.2)

Location: Northwestern Hawaiian Islands/Papahānaumokuākea Marine National Monument

NMFS Point of Contact: Charles Littnan, Pacific Islands Fisheries Science Center, charles.littnan@noaa.gov, 808-725-5711

Lead Partners: The Marine Mammal Center, Sustainable Coastlines Hawaii

Partners: NOAA Marine Debris Program, U.S. Fish and Wildlife Service, National Ocean Service, Papahānaumokuākea Marine National Monument, State of Hawaii Division of Land and Natural Resources, State of Hawaii Office of Hawaiian Affairs.

Proposed Start Date: NMFS efforts are ongoing. Northwestern Hawaiian Islands Monk Seal Assessment and Recovery Field Camps take place each year from approximately April through September. The new rehabilitation facility opened in 2014. New marine debris removal studies and efforts started in 2015.

Expected Completion Date: Annually, ongoing for at least next 10 years.

Current Status: Completed development of many effective intervention tools, and have received permits to do those actions (new ESA-MMPA permit in 2014; Permit No. 16632-00). Ready for implementation phase assuming continued staffing and funding levels. Continue to investigate the effectiveness and applicability of new tools to meet changing species needs.

Updates: The 2015 Northwestern Hawaiian Islands Monk Seal Assessment and Recovery Camps are complete. There were over 50 interventions in 2015 including 10 disentanglements, 5 medical interventions, 20 pup translocations and 1 shark removal to prevent predation of pups, 2 seals rehabilitated and released, 6 more seals brought in for care and more. The Hawaiian Monk Seal Research Program Annual Field Report (published on January 15 of each year) provides a summary of population numbers, births, trends, and interventions.

Resources:

Funding:

Approximate costs of camp and supplies: \$635,000 per year (including the underlying research program, existing staff time, and overhead costs). Ship time necessary: 2 cruises minimum of 23 days each = 46 days per year. Field camps were fully funded through fiscal year 2015 and 42 ship days were allocated for them. Future costs with expanded recovery efforts are expected to be \$688,000 and an additional 4 sea days per year needed.

Opportunities for Partners:

- We encourage collaboration with federal, state or private partners as part of a joint mission or logistics sharing to optimize rehabilitation efforts and enhance monitoring. Resource needs include an additional cruise, likely using a charter vessel, which could result in better understanding and mitigating sources of mortality, increasing numbers of interventions, and adding an additional 4-10 monk seals successfully rehabilitated and released each year. Charter cost would be approximately \$180,000 per year. These charter costs could be shared with external federal, state or private partners as part of a joint mission or logistics sharing.
- We encourage partners at U.S. Fish and Wildlife Service and State of Hawaii to maintain or increase resources and time allocated towards monk seal recovery efforts by dedicating additional staff time.

Manage and Mitigate Human-Seal Interactions to Ensure Natural Population Growth, Minimize Conflict, and Foster Coexistence

Description and Background: Monk seals have recently reestablished in the main Hawaiian Islands and the small population of approximately 200 seals is growing quickly. This new population gives hope for the species' recovery, but overlap with a human population unfamiliar with seals has resulted in numerous negative human seal-interactions. These include harassment of seals on the beach, fisheries interactions such as hookings, intentional killing, and more. Given that the monk seal population is so early in its reestablishment in the main Hawaiian Islands, we and our partners are in a unique position to work with local stakeholders to develop a future that allows for successful co-existence between seals and humans. To achieve that goal, we need to work with partners to develop and implement strategies for the proactive management of seal haul-outs on public beaches, minimize human health and safety risks by dealing with seals that actively seek out human interaction, understand and mitigate fisheries interactions, and dispel misconceptions of monk seals to reduce the intentional killing of seals. We will work with a consortium of researchers, managers, and stakeholder partners on a number of programs including, but not limited to:

- 1) *Mitigating Monk Seal Interactions with Hawaiian Fisheries:* Describe and quantify monk seal-fisheries interactions and develop new creative strategies that reduce monk seal injury and mortality, protect fishers' catch and gear, and maintain sustainable fisheries by mitigating interactions.
- 2) *Implementing Behavioral Modification Tools:* Develop and implement new tools and management strategies to prevent or modify aberrant behaviors in monk seals that are a danger to both humans and seals.
- 3) *Respond to and Resolve Seals of Concern:* This includes all emergency response and medical interventions as well as dealing with seals that might be placing themselves

or people at risk due to aberrant behaviors. This saves monk seal lives and enhances human safety.

Expected Benefits to the Species: At this time, human tolerance is the primary factor that will allow for the continued growth and existence of monk seals in the main Hawaiian Islands. It is likely that monk seals will reach a social carrying capacity (the number of seals communities will tolerate) before an ecological one. We increase our chances of successfully attaining the main Hawaiian Islands monk seal recovery goal of 500 seals by developing creative management tools and proactively working with the community to find a balanced management strategy that protects seals while being flexible for community needs. By implementing these actions we can maintain and, hopefully, enhance the recovery momentum that currently exists in the main Hawaiian Islands.

Source:

Recovery Plan for the Hawaiian Monk Seal

Recovery Strategy Key Action #3: Ensure the continued natural growth of the Hawaiian monk seal in the main Hawaiian Islands by reducing threats, including interactions with recreational fisheries, disturbance of mother-pup pairs, disturbance of hauled out seals, and exposure to human and domestic animal diseases. This should be accomplished with coordination of all federal, state, local, and non-governmental parties, volunteer networks, and increased outreach and education in order to develop a culture of co-existence between humans and seals in the main Hawaiian Islands.

- Recovery Action 1.5: Investigate competition with other top predators and commercial and recreational fisheries in the main Hawaiian Islands
- Recovery Action 5.4.1: Strengthen cooperative efforts with agencies and organizations responsible for managing beach areas
- Recovery Action 6: Reduce Hawaiian monk seal interactions with fisheries (see 9 sub-actions)
- Recovery Action 8: Reduce the likelihood and impact of human disturbance (see 8.1, 8.4)

Main Hawaiian Islands Monk Seal Management Plan

- Strategy: FISHERY PARTNERSHIPS – Reduce harmful monk seal-fishery interactions through engagement, outreach, and prevention
- Strategy: RESPONSE – Prevent and effectively respond to seals of concern
- Strategy: ENGAGEMENT – Engage communities and build productive relationships

Location: Main Hawaiian Islands

NMFS Point of Contact: Angela Amlin, Pacific Islands Regional Office, angela.amlin@noaa.gov, 808-725-5164

Lead Partner: State of Hawaii Division of Land and Natural Resources

Partners: Hawaiian Islands Humpback Whale National Marine Sanctuary, Western Pacific Fishery Management Council, Monk Seal Foundation, The Marine Mammal Center.

Proposed Start Date: Activity is ongoing and under constant refinement

Expected Completion Date: Ongoing

Current Status: Early in process. Plans in place; next steps involve coordination to engage partners in actively taking on roles. We have developed an acoustic deterrent protocol and implemented some behavioral modification tools. Limited education and engagement efforts are ongoing. We published a new Main Hawaiian Islands Monk Seal Management Plan in September 2015 that identifies many of the fine-scale activities and partnership opportunities needed to complete this action.

Resources:

Funding: Approximate spending in FY 2015: \$1,065,000 per year. Future cost expected to be ~\$1,295,000 per year. Includes full and partial salaries for multiple staff for response, research activities and gear, veterinary support, travel, as well as equipment and supplies costs.

Opportunities for Partners:

- We encourage sustained partnerships with State of Hawaii Division of Land and Natural Resources, Hawaiian Islands Humpback Whale National Marine Sanctuary, Western Pacific Fishery Management Council, Monk Seal Foundation, The Marine Mammal Center, and seek additional partners to support increased response and intervention efforts in the main Hawaiian Islands. These efforts will require additional funds to be sought or redirected from other activities under level funding in future years, and will require new partnerships and increased cooperation and collaboration.
- We encourage the public to be good neighbors to Hawaiian monk seals by giving seals space if encountered on the beach or in the water, never feeding seals, fishing with barbless circle hooks, and [reporting](#) all seal encounters.

Detect and Prevent Catastrophic Disease Outbreak and Disease-Related Mortality

Description and Background: The greatest disease threats to Hawaiian monk seals are infectious pathogens that have the potential to cause mortality, spread rapidly, and for which population immunity is lacking. The lack of genetic diversity within the remaining population further limits its flexibility in responding to a newly introduced disease. Early detection is the primary strategy for addressing disease threats and we have targeted surveillance for high-risk diseases such as toxoplasmosis, morbillivirus, West Nile virus and influenza. We have recently completed disease outbreak preparedness planning including the development and permitting of a vaccination program. To be effective, vaccination efforts will require a two-pronged approach:

(1) vaccination of seals handled during regular research activities and (2) preparedness for large-scale vaccination efforts in the face of an outbreak. To address the emerging threat of toxoplasmosis, for which there is currently no vaccine, a multi-pronged approach will be required including a strong outreach effort, targeted host removal, early detection efforts, and research into development of a potential vaccine or remedy. Combined with other threat mitigation strategies, the capacity to monitor and respond to infectious disease threats is part of a comprehensive approach to population recovery. To be successful our surveillance component will require effective coordination with other wildlife and disease monitoring agencies within Hawaii to create a robust surveillance and reporting network.

Expected Benefits to the Species: For some infectious threats, the risk of entry into the population may be relatively low. However, vector presence and seal behavior suggest that once introduced, these pathogens would spread and may thus compromise the species' existence, despite all other enhancement measures. Undertaking vaccination activities will prevent a catastrophic disease outbreak that could undo decades of recovery work and push monk seals into extinction.

Source:

Recovery Plan for the Hawaiian Monk Seal

Recovery Strategy Key Action #3: Ensure the continued natural growth of the Hawaiian monk seal in the main Hawaiian Islands by reducing threats, including ... exposure to human and domestic animal diseases.

Recovery Strategy Key Action #4: Reduce the probability of the introduction of infectious diseases into the Hawaiian monk seal population.

- Recovery Action 4: Prevent introduction and spread of infectious disease (see 11 sub-actions)

Main Hawaiian Islands Monk Seal Management Plan

Strategy: HEALTH – Reduce infectious disease risk and disease-related mortality

- Objective HEA-1: Evaluate and reduce risk of exposure and transmission of disease to monk seals
- Objective HEA-2: Detect early incidences of disease in monk seal population
- Objective HEA-3: Be prepared with strategies to treat affected animals and prevent disease spread

Location: Hawaiian Islands Archipelago

NMFS Point of Contact: Charles Littnan, Pacific Islands Fisheries Science Center, charles.littnan@noaa.gov, 808-725-5711

Partners: The Marine Mammal Center, State of Hawaii Division of Land and Natural Resources, State of Hawaii Department of Health, U.S. Geological Survey, National Wildlife Health Center-Honolulu. Tackling an issue such as toxoplasmosis will require a diverse network of partners to collaborate on public education efforts and vector control. Existing and potential

partners include some of the aforementioned partners as well as the U.S. Fish and Wildlife Service, Department of Health, various non-governmental organizations such as the American Bird Conservancy and Island Conservation, the National Institutes of Health, and the Centers for Disease Control.

Proposed Start Date: Monitoring is ongoing. Vaccinations can be implemented as soon as April 2016.

Expected Completion Date: This will likely be ongoing for next decade at least.

Current Status: Modeling and planning is completed and permits are in place. Analyzing the relative feasibility and effectiveness of alternate vaccination approaches (or combination of both): (1) vaccination of seals handled during regular research activities and (2) preparedness for large-scale vaccination efforts in the face of an outbreak. The vaccination program is ready to move forward, however, there are some issues with commercial availability of current vaccine, so we are locating alternate suppliers and testing options.

Updates: Updates on vaccination activities will be provided in Hawaiian Monk Seal Research Program Annual Field Report January 15th of each year.

Resources:

Funding:

Annual expected costs of vaccines and supplies: \$24,000. New action; enhancing disease surveillance and vaccination for each year's cohort of seals will require an additional \$85,000 each year.

Opportunities for Partners:

- We encourage the public to report all monk seal sightings, sick or injured to: 1-888-256-9840.
- We encourage sustained partnerships with the diverse group of stakeholders listed above, in order to develop and implement plans to reduce the threat presented by toxoplasmosis and feral cats to human health and fragile native animal communities.

Develop and Implement Strategic Communications Plan and Social Marketing Strategy

Description and Background: Strategic communications will effectively promote human behavior change and a culture of co-existence around monk seals. NMFS or our partners need to research, design, and implement a multi-faceted strategic communications plan, including social marketing strategy for both resident and visitor communities. The relatively healthy main Hawaiian Islands monk seal population is playing an extremely important role in beginning to stabilize the species and prevent extinction. However, with the growing number of seals near Hawaii's human population, we see growing challenges with seal-human interactions. These

challenges lead to human safety concerns from overly friendly seals, harassment of seals by the public, fishery interactions that can lead to injured seals and frustrated people, and even intentional killing of seals. A strategic communications plan will move us beyond basic outreach to more effective marketing and communications that effectively prioritize recovery messages in ways that are meaningful for different target audiences and create sustainable behavior change across Hawaii's communities.

Expected Benefits to the Species: Reduced conflict and co-existence between increasing seal and human populations in the main Hawaiian Islands is a priority for species recovery. Communication that encourages community engagement, dispels misconceptions, and builds appreciation for the monk seal as an important part of Hawaii's natural heritage will be essential in creating an environment in which monk seals can thrive.

Source:

Recovery Plan for the Hawaiian Monk Seal

- Recovery Action 13: Create a Main Hawaiian Islands Monk Seal Management Plan (see 13.3, 13.4, 13.5)
- Recovery Action 14: Implement the Hawaiian Monk Seal Recovery Program (see 14.2)

Main Hawaiian Islands Management Plan

- Strategy: FISHERY PARTNERSHIPS – Reduce monk seal-fishery impacts through engagement, outreach, and prevention
- Strategy: RESPONSE – Prevent and effectively respond to seals of concern
- Strategy: ENGAGEMENT – Engage communities and build productive relationships
- Strategy: EDUCATION – Increase effective outreach and education
- Strategy: CAPACITY – Build program capacity

Location: Main Hawaiian Islands

NMFS Point of Contact: Angela Amlin, Pacific Islands Regional Office, angela.amlin@noaa.gov, 808-725-5164

Partners: State of Hawaii Division of Land and Natural Resources, U.S. Fish & Wildlife Service, National Ocean Service, Papahānaumokuākea Marine National Monument, Hawaiian Islands Humpback Whale National Marine Sanctuary, Monk Seal Foundation, The Marine Mammal Center

Proposed Start Date: FY 2016

Expected Completion Date: Plan completion: FY 2017, implementation: ongoing.

Current Status: Some outreach and education activities are ongoing with the guidance of a basic outreach plan and the new Main Hawaiian Islands Monk Seal Management Plan.

Resources:*Funding:*

Plan development: \$150,000; implementation: \$120,000 per year. This is a new action that will require additional funds to be sought or redirected from other activities under level funding in future years.

Opportunities for Partners:

- We encourage sustained partnerships with State of Hawaii Division of Land and Natural Resources, U.S. Fish & Wildlife Service, National Ocean Service, Papahānaumokuākea Marine National Monument, Hawaiian Islands Humpback Whale National Marine Sanctuary, Monk Seal Foundation, The Marine Mammal Center, and seek additional partners to support strategic communications and social marketing to reduce conflicts and promote co-existence between monk seals and the public.

Encourage Community-led Monk Seal Stewardship and Citizen Science

Description and Background: Community groups and members that are engaged in their own outreach and education and coastal stewardship efforts are essential for monk seal recovery. In the new Main Hawaiian Islands Monk Seal Management Plan, we encourage interested communities to create community-based monk seal stewardship plans (or integrate monk seals into existing community stewardship plans). Grants and support from NMFS and our partners will help communities to do this, benefiting both priority monk seal recovery issues and ocean-based activities and livelihoods. A new Hawaiian monk seal citizen science program will also broadly engage Hawaii’s communities in monk seal conservation and include them in monitoring the species. The program includes development of a mobile application and website for citizen scientists to enter their monk seal sightings thus helping NMFS monitor monk seals and intervene when necessary. Users of the application will learn how sightings contribute to understanding the seal population, receive alerts about seals of concern from our recovery program, and find information about responsible wildlife viewing guidelines. Stabilization and recovery of Hawaiian monk seals will not be successful without engagement and investment from local communities. Community-based stewardship and a more formal citizen science program will:

- Encourage a broader cross section of the public to become involved in monk seal recovery along with the volunteer groups
- Support productive, non-confrontational means of communication to resolve conflicts with (or about) monk seals
- Positively affect the way people behave around seals in the wild to reduce conflicts and adverse interactions between people and seals.

- Build trust and transparency in monk seal population data
- Help standardize data reporting
- Establish quality control measures for information coming from public sources

Expected Benefits to the Species: This strategy uses community participation and partnerships to help humans and monk seals share Hawaii’s beaches, shoreline areas and coastal waters with minimal conflict and maximum benefit. A foundation for a sustainable culture of co-existence takes root when individuals in communities across Hawaii report and care for monk seals and when they see how their input helps identify potential seals of concern and creates useful descriptive statistics to understand the seal population. Broad inclusion of communities and enhanced engagement from the non-government sector in monk seal conservation will ultimately help create a sustainable culture of co-existence and respectful human behavior around monk seals on the beach and in the water, reducing disturbance and other human interactions.

Due to the expansive area in the main Hawaiian Islands, deploying field staff to all seal haul-out areas is impractical, and we are dependent on quality data from concerned citizens to monitor the main Hawaiian Islands seal population and track human-seal interactions. This puts citizens at the forefront of monk seal science and disease surveillance and makes them a critical piece of our collective recovery efforts. Ensuring easy reporting and improving quality data are essential to tracking population trends, responding to emergencies, and planning appropriate recovery actions for the main Hawaiian Islands.

Source:

Recovery Plan for the Hawaiian Monk Seal

- Recovery Action 5.4.1: Strengthen cooperative efforts with agencies and organizations responsible for managing beach areas where local groups or colonies of monk seals may become established in the main Hawaiian Islands to ensure that measures are in place to avoid disturbance or displacement of seals that haul out to rest, pup, or molt
- Recovery Action 14.2: Support and integrated education and outreach program by NMFS in collaboration with other government agencies and non-government partners. Program goals should include minimizing human disturbance and other adverse impacts and maximizing public support for conservation activities.

Main Hawaiian Islands Management Plan

- Fishery Partnerships Objective FSH-1: Build trust and relationships with fishing communities and leaders to foster sustainable collaboration and cooperation and work toward common goals
- Fishery Partnerships Objective FSH-3: Encourage and facilitate reporting of fishery interactions with monk seals to improve response for enhanced seal welfare and reduced impacts on fisheries
- Response Objective RES-4 Effectively communicate with the public about seals of concern

- Engagement Objective ENG-2: Encourage communities to take a proactive stewardship role in monk seal recovery to broaden ownership and build trusted community-based framework for addressing issues and disputes about monk seal conservation
- Education Objective EDU-2: Encourage collaboration and coordination to improve partnerships, increase information flow and transparency, and broaden the distribution of monk seal outreach
- Capacity Objective CAP-1: Productively coordinate and communicate with partners and stakeholders

Location: Main Hawaiian Islands

NMFS Point of Contact: Angela Amlin, Pacific Islands Regional Office, angela.amlin@noaa.gov, 808-725-5164

Partners: State of Hawaii Department of Land and Natural Resources, Monk Seal Foundation, The Marine Mammal Center

Proposed Start Date: Community grants have been ongoing at reduced level. Proposed increase in program by FY 2017. Citizen science program planning started in 2015.

Expected Completion Date: Community-led stewardship ongoing; grants awarded annually. Fully functional citizen science program: end of fiscal year 2017 (milestones for component pieces will be reached by end of fiscal year 2016); implementation ongoing.

Current Status: Small grant program currently in existence supporting 2-5 organizations per year at \$10-40,000 for education and response to monk seal haul-outs. Citizen science program preliminary planning and brainstorming on functions, data needs.

Resources:

Funding:

Approximate spending on community response support and education grants by NMFS in FY 2015: \$140,000 per year. An expanded program expected to have state-wide benefits by providing meaningful support to multiple organizations will be \$400,000 per year. Citizen science program development: \$175,000; implementation and maintenance: \$80,000 per year. The expanded community response and education grants programs and the Citizen science program are new actions that will require additional funds to be sought or redirected from other activities under level funding in future years.

Opportunities to Partner:

- We encourage sustained partnerships with State of Hawaii Department of Land and Natural Resources, Monk Seal Foundation, The Marine Mammal Center, State of Hawaii Division of Land and Natural Resources, and seek additional partners to support community-led stewardship and citizen science programs.

REFERENCES

- Carretta, J. V., E. Oleson, D. W. Weller, A. R. Lang, K. A. Forney, J. Baker, Brad H., K. Martien, M. M. Muto, M. S. Lowry, J. Barlow, D. Lynch, L. Carswell, R. L. Brownell, Jr., D. K. Mattila, and M. C. Hill. 2014. U.S. Pacific marine mammal stock assessments: 2013. NOAA Technical Memorandum NMFS-SWFSC-(DRAFT), Southwest Fisheries Science Center: San Diego, California.
- Harting, A.L., T.C. Johanos, and C.L. Littnan. 2014. Benefits derived from opportunistic survival-enhancing interventions for the Hawaiian monk seal: the silver BB paradigm. *Endangered Species Research* 25, pp. 89-96.
- Lowry, L.F., D.W. Laist, W.G. Gilmartin, and G.A. Antonelis. 2011. Recovery of the Hawaiian monk seal (*Monachus schauinslandi*): A review of conservation efforts, 1972-2010, and thoughts for the future. *Aquatic Mammals* 37(3), pp. 397-419.
- National Marine Fisheries Service (NMFS). 2016. Main Hawaiian Islands Monk Seal Management Plan. National Marine Fisheries Service, Pacific Islands Region, Honolulu, HI, 52 pp.
- ESA-MMPA Scientific Research and Enhancement Permit No. 16632-00. 2014. National Marine Fisheries Service, Office of Protected Resources, Silver Spring, MD, 32 pp. <http://www.nmfs.noaa.gov/pr/permits/eis/permit16632-00.pdf>
- Recovery Plan for the Hawaiian Monk Seal (*Monachus schauinslandi*). 2007. Second Revision. National Marine Fisheries Service: Silver Spring, MD, 165 pp.



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