

LINDA LINGLE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

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COMMISSION ON WATER RESOURCE MANAGEMENT

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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

**TESTIMONY OF THE CHAIRPERSON
OF THE BOARD OF LAND AND NATURAL RESOURCES**

on SENATE BILL 2465 – Relating To Hawaiian Monk Seal Day

**BEFORE THE HOUSE COMMITTEE ON
TOURISM AND CULTURE**

March 24, 2008

Senate Bill 2465 designates the third Saturday in April of each year as “Hawaiian Monk Seal Day.” The Department of Land and Natural Resources (Department) supports this measure as the Department believes it is fully consistent with our goal of fostering community-based conservation of Hawaiian Monk Seals and other indigenous wildlife species.

The Department works closely with the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service and National Marine Sanctuary Program, and numerous conservation organizations and community groups to promote the protection and recovery of our critically endangered Hawaiian Monk Seals. For example, with funding from NOAA, Department staff on Kau‘ai manages a network of over 50 volunteers who set up “seal protection zones” around seals “hailed-out” on shore. These roped-off areas help ensure the protection of the seals and the safety of beach goers. Our Kau‘ai seal response network typically conducts more than 400 such responses every year. Department staff also manages a similar NOAA-funded seal response network on Hawai‘i Island. In addition, Department staff across the State, coordinates rescue responses for injured or entangled seals, and conduct a wide variety of research, education and outreach activities devoted to monk seal conservation.

The Department believes designating a state Hawaiian Monk Seal day would help raise public awareness of the plight of the seal and bolster public support for seal conservation efforts. The Department looks forward to working with the Legislature and all concerned parties toward the continued protection of Hawaiian Monk Seals and their ultimate recovery from endangered species status.

TO: HOUSE COMMITTEE ON TOURSIM AND CULTURE
Mr. Ryan Yamane, Chair
Mr. Joey Manahan, Vice Chair

VIA: FAX: 686-6011

FR: Georgette Yaindl
1312A 13th Ave.
Honolulu, HI 96816
808-732-3138
yaindl@hawaii.edu

RE: **For Public Hearing, Monday, March 24, 2008**
10:00 am; Conference Room 325

Please make twelve (12) copies.

Testimony IN STONG SUPPORT of SB2465, Designating an Annual Monk Seal Day

March 23, 2008

Dear Representatives Yamane, Manahan, and Committee members,

Thank you for raising for public hearing SB2464, the bill designating the Hawaiian monk seal as our State Mammal.

It is imperative that we establish an annual Hawaiian monk seal day - if every day cannot be so designated! - for many reasons. One of these is because while the population of monk seals is declining in the northwest Hawaiian Islands, it has been increasing in the Main Hawaiian Islands during recent years. There are a variety of factors contributing to this occurrence, including disappearance of beachfront pupping habitat due to global warming. I think we also should consider the return of Hawaiian monk seals to the Main Hawaiian Islands as the monk seal's final appeal to all Hawaii's residents and visitors to participate in the protection and recovery of this twelve million year old species. The third Saturday in April corresponds to the start of pupping season so this is the perfect time for us to schedule the annual Hawaiian monk seal day.

Thank you for your support.

Sincerely,

Georgette Yaindl
Kaimuki

manahan1-Haylee

From: donnafesta@aol.com
Sent: Thursday, March 20, 2008 10:43 PM
To: TACtestimony
Subject: Support for SB2465 Hawaiian Monk Seal Day

Rep. Ryan I. Yamane, Chair
Rep. Joey Manahan, Vice Chair

From: Donna Festa, Realtor-Associate, CENTURY 21 Kailua Realty
Volunteer, NOAA

Testimony in Strong Support of SB2465 Designating an Annual Hawaiian Monk Seal Day

For Public Hearing Monday March 24, 2008; CR 325 10:00 AM
Please make 12 copies

Dear Representatives Yamane, Manahan and Committee Members;

In addition to my support for naming the Hawaiian Monk Seal the state mammal, I also strongly support designating the 3rd Saturday in April as an annual Hawaiian Monk Seal Day. Many of the same reasons apply to both bills, however I do think having a designated day that coincides with the annual monk seal count, would provide NOAA, and other agencies the opportunity to promote this time of year.

Beyond NOAA and state agencies this time of year could be an incentive for any non-profit organizations to target their fund raising activities. We all realize funds are scarce for many many needed causes, therefore I believe any nonprofit organization would be willing to make the most of this time of year, it certainly would help bring the awareness to the forefront.

It's going to take a lot of work and certainly more than just naming a day for the Hawaiian Monk Seal but it is an enormous part of creating the momentum needed to assist in the recovery of this species.

Donna Festa (RA)
CENTURY 21 Kailua Beach Realty
130 Kailua Road Suite 110
Kailua, HI 96734
808-561-8112 (cell)
808-262-8275 (fax)

Planning your summer road trip? Check out [AOL Travel Guides](#).

3/23/2008

March 21, 2008

To: The House of Representatives Committee on Tourism & Culture
Representative Ryan Yamane, Chair
Representative Joey Manahan, Vice Chair
House of Representatives Committee on Tourism & Culture

From: Gerald Okamoto
700 Richards Street
Apartment 1810
Honolulu, HI 96813
(808) 291-0907
geraldokamoto@gmail.com

Reference: For Public Hearing, Monday, March 24, 2008, 10:00 a.m., Conference Room 325
Testimony in SUPPORT of SB2465, Designating an annual Hawaiian Monk Seal Day.

For the last three weeks in January 2008, I had the pleasure of “standing watch” over Chester, a Hawaiian Monk Seal who was molting on the beaches of Kailua, Kalama and Lanikai.

During the many hours of volunteering to protect this Hawaiian treasure, it was a pleasure to share with residents in the area and tourists from various countries, the historical significance of the Hawaiian Monk Seal to the Hawaiian Islands, culture and people. Many were also surprised and concerned to discover the Hawaiian Monk Seal is the most endangered mammal in the entire United States and had experienced a steady decline in population of approximately four percent per year for the past twenty years.

What this experience brought to the forefront was the need for outreach and education to develop a culture of coexistence between humans and the Hawaiian Monk Seal, as their very continued existence is threatened by human disturbance, habitat loss, infectious disease, fishery interactions, entanglement in marine debris (gill nets, lost gear), coral/reef deterioration and food competition.

Establishing the Annual Hawaiian Monk Seal Day is an incremental step to achieving this objective. This designation has allows this subject to be better understood by the people of Hawaii and those who come to visit our beautiful island and allows us to continue to share this special treasure of the Hawaiian Island. As indicated by my most recent experience, even the brief interaction with the Hawaiian Monk Seal established a memorable bond to those who happened to be visiting Hawaii and a provided a greater sense of our history for those who reside in Hawaii.

For humanity, economic, tourism and local cultural reasons, I strongly support this bill and urge the state legislature to act and pass this bill.

Sincerely,

Gerald Okamoto

manahan1-Haylee

From: patie boehm [patiemoose@hotmail.com]
Sent: Friday, March 21, 2008 5:08 PM
To: TACtestimony

March 21, 2008

To: The House of Representatives Committee on Tourism & Culture
Representative Ryan Yamane, Chair
Representative Joey Manahan, Vice Chair
House of Representatives Committee on Tourism & Culture

From: Patricia Boehm
944 Wanaao Road
Kailua, Hawaii 96734
808-261-4238
patiemoose@hotmail.com

Reference: For Public Hearing, Monday, March 24, 2008, 10:00 a.m., Conference Room 325

Testimony in SUPPORT of SB2465, Designating an annual Hawaiian Monk Seal Day.

I am one of the volunteers from Kailua that was part of the response team helping Chester the Hawaiian Monk Seal stay on Kailua Beach to complete his annual molt safely.

I have lived in Kailua for over 20 years and I had not seen a Hawaiian Monk Seal only heard from my daughter who surfs that she had seen one. My response to her was always that I really wished I was able to see this special seal.

January 1st changed my life. I not only got to see this endangered mammal, I spent my nights on the beach in a sleeping bag under the stars with a flash light watching to keep him safe from dogs on the beach and anything else that might disturb this stressful time in a monk seal's life.

I met many residents and tourists walking the beach that were unaware of the Endangered Hawaiian Monk Seal. They were amazed that this seal was the most endangered mammal in the United States. The Humpback whale is our marine mammal and is proof that we can make a difference and this mammal is now thriving with continued increased numbers. The Humpback whale is a visitor to the Hawaiian waters each year but the Hawaiian Monk Seal is a resident!

Hawaiian Monk Seal Day is an important step to help educate us about this endangered mammal and protect it from extinction. The tourists I met on Kailua Beach were thrilled to hear about the Hawaiian Monk Seal and many asked how they could help.

Please help save our resident, the Hawaiian Monk Seal, and pass this bill.

Sincerely,

Patricia Boehm

Windows Live Hotmail is giving away Zunes.

http://www.windowlive-hotmail.com/ZuneADay/?locale=en-US&ocid=TXT_TAGLM_Mobile_Zune_V3

Rep. Ryan I. Yamane, Chair, Committee on Tourism and Culture
Rep. Kyle T. Yamashita, Chair, Committee on Economic Development and
Business Concerns

March 24, 2008
10:00 am. Conference Room 325

Testimony in strong support of SB 2464 and SB 2465

Chairs Yamane, Yamashita, and members of the committees:

My name is William Aila Jr, and I am an employee of DLNR however, the testimony is that of my own.

The Hawaiian Monk Seal is the most endangered mammal in the United States. There are only about 1000 left in the world.

We, the people of Hawaii, Hawaiians and Non-Hawaiian have a responsibility to both the Monk Seal and future generations of our children to do everything within our power to increase the chances for recovery of this endemic species.

There will be some who misunderstand the purpose of these two bills. Let me be clear the purpose is to bring more awareness to the plight of these magical mammals.

These bills will not take away any attention of the Humpback Whale, nor will either designation impact fishermen, the Hawaiian Monk Seal is already protected Federal and State law. These designations will help to highlight the urgency that is needed to educate and gain assistance from everyone in the state and the rest of the world, of the challenge that Monk Seals face.

Please pass both SB 2464 and SB 2465 and make a difference in the survival of this, our endangered Hawaiian Monk Seal.

Mahalo for the opportunity to testify in favor of SB 2464 and SB 2465.

February 8, 2008

Representative Ryan Yamane, Chair and Committee Members
Hawaii State House Committee on Tourism and Culture
Hawaii State Capitol
415 South Beretania St.
Honolulu, Hawaii 96813
repyamane@capitol.hawaii.gov
February 8, 2008 W&L Committee Hearing @8:30 Rm 312

Testimony in support of HB 2625 & HB 2626

HB 1615 Relating to the designation of April 19 as "Hawaiian Monk Seal Day"

HB 2626 Relating to the designation of the Hawaiian Monk Seal, the State Mammal

Aloha Chair Yamane and Members of the Committee on Tourism and Culture:

My name is Keiko Bonk, and I am the Program Director for the Marine Conservation Biology Institute, Hawaii. MCBI is a non-profit conservation organization that protects ocean life through science and policy development.

Thank you very much for hearing HB's 2625 and 2626, introduced by Representative Pine, relating to naming the Hawaiian Monk Seal, Ilio-holo-kauaua or "Dog Running Through Rough Waters" the state mammal & dedicating April 19th as an awareness day for this endemic species. The Hawaiian monk seal is a 13 million year old Hawaiian species in need of your help. This ancient Hawaiian mammal is in critical danger of going extinct. There are less than 1200 monk seals left in Hawaii and the population is rapidly declining. I heard from our science experts yesterday that if we do not start to take more action to recover this seal, the population will decline faster in the next 5 years and once that happens, it will not look good for these mammals.

The reasons for the monk seal's decline are numerous and most threats are related to human impacts:

1. Low survival rate of juveniles & sub-adults due to starvation
2. Entanglement of seals in marine debris
3. Predation of juvenile seals by Galapagos sharks
4. Fishery interactions (over fishing)
5. Mother-pup disturbance on the beaches
6. Pupping beaches lost to erosion (climate change)
7. Potential disease outbreaks

I come here today to alert you to the plight of our Hawaiian seals. I hope you are motivated to take a step for the State of Hawaii to save this grand old creature. The monk seal thrived in our Hawaii home millions of years before our youngest islands were born, long before our species arrived. This mammal is worthy of respect and should be treated as an ancient "elder". This animal is also an icon of the 21st century because its decline reflects man's negligence and lack of respect for our natural world. I look forward to the

day when we can redeem ourselves as a species by allowing this beautiful species and other endangered species the right to thrive without our assistance. But until that day this animal needs our day-to-day help.

This mammal lives both on Hawaii's land and sea and exemplifies all the wonder, beauty and environmental fragility of our archipelago. The seal a sympathetic "poster child" and would serv to develop the needed attention for all of Hawaii's endangered flora and fauna. This animal instills the charm of a faithful dog and human beings have been connected to dogs as part of our society for a thousands of years. Yes this animal emotes "cute and cuddly".

The Hawaiian Monk Seal was placed on the endangered species list in 1976. Last year, 31 years after these seals were officially designated a prioritized at-risk animal, the Federal Recovery Plan (attached Recovery Plan Summary) was signed. At this public signing last August, U.S. Senator Daniel Inouye endorsed this recovery plan and said he would do everything in his power to protect this animal and ensure generations of Hawaii's children the opportunity to live with healthy numbers of this magnificent Hawaiian mammal. Please take Senator Inouye's promise to heart and do the things necessary to make his vision a reality.

Presently, the State of Hawaii has no official monk seal program or a companion to the federal monk seal recovery plan. DAR incorporates seal response coordination into the State Humpback Whale Sanctuary Program. The State of Hawaii is presently not in compliance with the monk seal protection as required by state and federal Endangered Species and Marine Mammal laws. We need to begin to take responsibility for our natural world in Hawaii and start by caring for our wildlife.

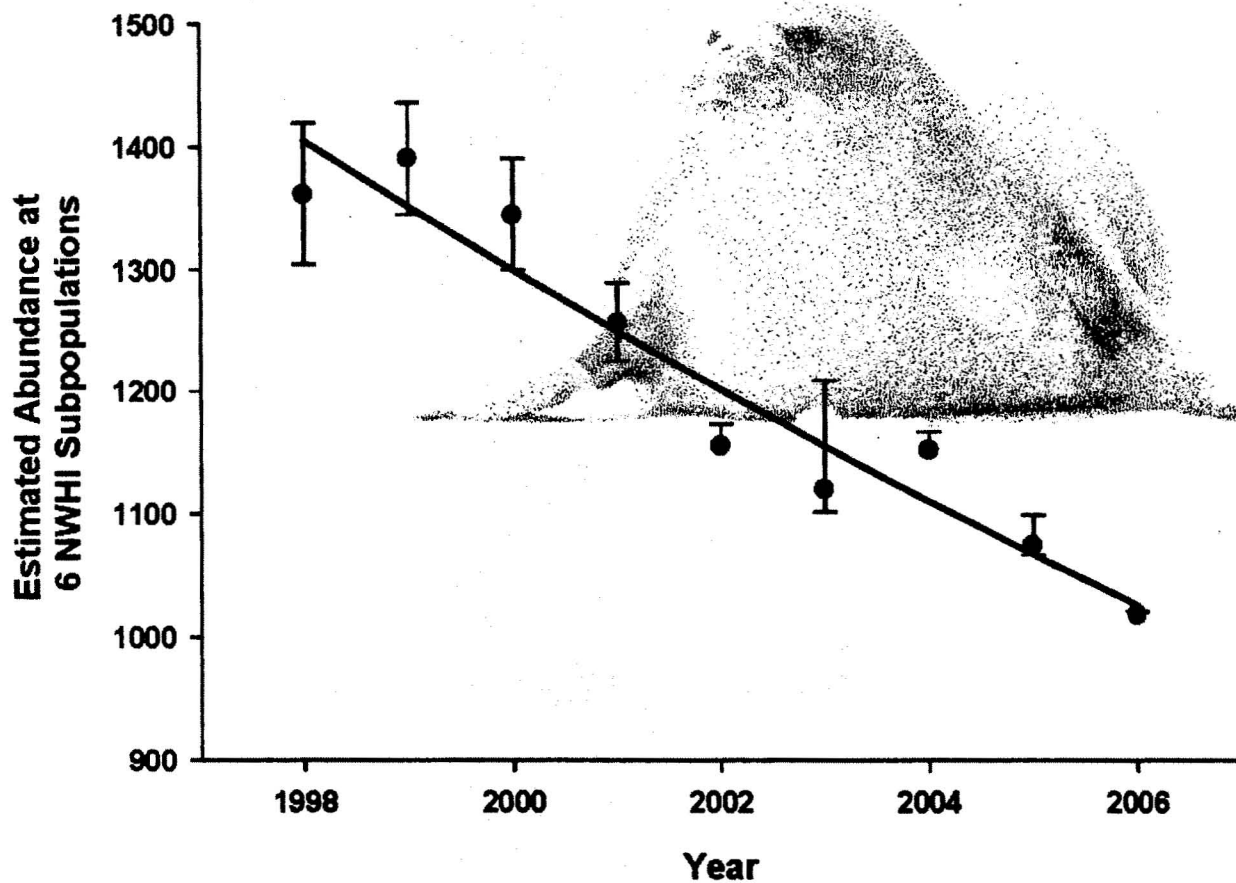
Last year we unfortunately lost seal pups to net entanglements right here on the island of Oahu. A couple weeks ago we lost a female pup on Molokai. We need to develop the adequate response & public awareness to protect our seals or we will lose more seals in 2008. With less than 1200, we cannot afford to lose one more pup.

The NMFS Monk Seal Recovery Team met at the Ala Moana Hotel this week. A dedicated group of scientists, policy makers and seal coordinators worked diligently on the implementation programs to save our seals. Your support for these 2 initiatives bring the awareness and education needed for residents and our visitors to respect and care for our Hawaiian Monk Seal. Please take this step to bring this species back to healthy numbers. Please take action and name the state mammal the Ilio-holo-kauaua, the Hawaiian Monk Seal. And please do not stop here, but do everything in your power to ensure that generations will live in harmony with this auspicious Hawaiian mammal. Thank you for your time and consideration.

Aloha nui loa,
Keiko Bonk
808-734-4234; keiko.bonk@mcbi.org

RECOVERY PLAN FOR THE HAWAIIAN MONK SEAL (*Monachus schauinslandi*)

REVISION



National Marine Fisheries Service
National Oceanic and Atmospheric Administration

August 2007

RECOVERY PLAN FOR THE HAWAIIAN MONK SEAL
(Monachus schauinslandi)

REVISION

Original Version: March 1983

Prepared by

National Marine Fisheries Service
National Oceanic and Atmospheric Administration

Approved: *William T. Hogarth*

William T. Hogarth, Ph.D.
Assistant Administrator for Fisheries
National Oceanic and Atmospheric Administration

Date August 22, 2007

EXECUTIVE SUMMARY

The Hawaiian monk seal (*Monachus schauinslandi*) is in crisis: the population is in a decline that has lasted 20 years and only around 1200 monk seals remain. Modeling predicts the species' population will fall below 1000 animals in the next five years. Like the extinct Caribbean monk seal and the critically endangered Mediterranean monk seal, the Hawaiian monk seal is headed to extinction if urgent action is not taken. Implementation of this plan, adequate resources, and improved coordination and cooperation provide hope that the species decline can be reversed.

For more than two decades, great effort has been made to manage, study, and recover the Hawaiian monk seal. However, actions to date have not been sufficient to result in a recovering population. The species status would undoubtedly have been worse but for these actions. Nonetheless, significant threats face this species:

- Very low survival of juveniles and sub-adults due to starvation (believed to be principally related to food limitation) has persisted for many years across much of the population
- Entanglement of seals in marine debris has and continues to result in significant levels of seal mortality
- Predation of juvenile seals by Galapagos sharks has significantly increased
- Human interactions in the Main Hawaiian Islands (MHI) including recreational fishery interactions, mother-pup disturbance on popular beaches, and exposure to disease
- Hawaiian monk seal haul-out and pupping beaches are being lost to erosion in the Northwest Hawaiian Islands (NWHI), and monk seal prey resources in the NWHI may have been reduced as a result of climate cycles and other factors
- Potential disease outbreaks could have a devastating effect due to small population size and limited geographic range

Due to low juvenile survival and an aging, breeding female population, there will not be sufficient replacement of breeding females, and birth rates subsequently will decline. This underscores the irony of past and current efforts to reduce these threats in that initial success may only slow a process of decline and even more actions will be required to reverse the decline and prevent the extinction of this species. Recovery of the Hawaiian monk seal depends upon a range of comprehensive actions detailed in this Recovery Plan, as well as the full participation and support of all federal, state and private stakeholders. These actions should be pursued aggressively to prevent the extinction of this species, and funding decisions should give highest priority to actions that will contribute directly to mitigating impacts and sources of mortality that reduce survival rates of Hawaiian monk seals, particularly females and juveniles.

In order to preserve the future reproductive potential for recovery, one of the highest priorities being pursued by NMFS is the development of a captive care program to nutritionally supplement juvenile female seals. The goal of the program will be to increase the survival of female seals during the critical juvenile life stages that are now experiencing low survival. This will likely be a combined effort of NMFS and animal care organizations. A workshop on the development of a 10-year captive care plan was held in June 2007. Without such efforts, the loss of young females will significantly decrease the recovery potential of the species, as there will not be enough females in the population.

CURRENT SPECIES STATUS: The Hawaiian monk seal was listed as an endangered species pursuant to the Endangered Species Act (ESA) on November 23, 1976 (41 FR 51611) and remains listed as endangered. The species has a recovery priority number of one, based on the high magnitude of threats, the high recovery potential, and the potential for economic conflicts while implementing recovery actions. Based on recent counts, the current population is approximately 1200 individuals. Since the publication of the last Recovery Plan for Hawaiian monk seals over two decades ago (Gilmartin, 1983), much has been done to reduce the impact of many of the most direct, and obvious, causes of decline. Nonetheless, the present total population of the species is small and declining. The population is already so small as to be in the range where there is concern about long-term maintenance of genetic diversity.

HABITAT REQUIREMENTS AND LIMITING FACTORS: The Hawaiian monk seal has the distinction of being the only endangered marine mammal whose entire species range – historical and current – lies within the United States (however the species has been sighted outside the U.S. Exclusive Economic Zone). The majority of the population of monk seals now lies in the NWHI with six main breeding sub-populations. The species is also found in lower numbers in MHI where the population size and range both appear to be expanding. The main terrestrial habitat requirements include: haul-out areas for pupping, nursing, molting, and resting. These are primarily sandy beaches, but virtually all substrates are used at various islands.

Monk seals also spend nearly two-thirds of their time in marine habitat. Monk seals are primarily benthic foragers (Goodman-Lowe 1998 et al.), and will search for food in a broad depth range up to 500 m and over different substrates (Parrish et al., 2000, 2002, in review). The food available in their marine habitat seems to be a limiting factor to population growth in the NWHI, with the greatest impact of food limitation being on the survival of juvenile and yearling seals, age of sexual maturity, and fecundity.

RECOVERY GOAL: The goal of this revised recovery plan is to assure the long-term viability of the Hawaiian monk seal in the wild, allowing initially for reclassification to threatened status and, ultimately, removal from the List of Endangered and Threatened Wildlife.

RECOVERY STRATEGY: While recommendations within this report are many and detailed, there are four key actions required to alter the trajectory of the Hawaiian monk seal population and to move the species towards recovery:

1. Improve the survivorship of females, particularly juveniles, in sub-populations of the NWHI. To do this requires the following:
 - maintaining and enhancing existing protection and conservation of habitat and prey base;
 - targeting research to better understand the factors that result in poor juvenile survival;
 - intervening where appropriate to ensure higher survival of juvenile and adult females;
 - continuing actions to protect females from individual and multiple male aggression and to prevent excessive shark predation; and

- continuing actions to remove marine debris and reduce mortality of seals due to entanglement.
2. Maintain the extensive field presence during the breeding season in the NWHI. 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-populations in these areas.
 3. Ensure the continued natural growth of the Hawaiian monk seal in the MHI 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-government parties, volunteer networks, and increased outreach and education in order to develop a culture of co-existence between humans and seals in the MHI.
 4. Reduce the probability of the introduction of infectious diseases into the Hawaiian monk seal population.

RECOVERY CRITERIA: The population will be considered for a reclassification as “threatened” if all the following three conditions are met:

Downlisting Criteria:

1. aggregate numbers exceed 2,900 total individuals in the NWHI
2. at least 5 of the 6 main sub-population in the NWHI are above 100 individuals and the MHI population is above 500
3. survivorship of females in each subpopulation in the NWHI and in the MHI is high enough that, in conjunction with the birth rates in each subpopulation, the calculated population growth rate for each subpopulation is not negative.

Threats-based Criteria:

Factor A. Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Criteria: Measures are in place to manage human factors affecting food limitations, habitat loss and contaminants in the NWHIs. Management measures are also in place to a) minimize human disturbance of monk seals that haul-out on beaches in the MHI, and b) protect major monk seal haul-out habitat in the MHI.

Factor B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Criteria:

1. Procedures, including data collection and analyses, are in place to evaluate and ensure that scientific research on Hawaiian monk seals, including their

observation, handling, and instrumentation, will not cause significant adverse impacts on monk seal survival, behavior, or population growth.

2. Procedures are in place to ensure that any proposed NWHI operations that may increase seal disturbance or threaten survival will be reviewed and carefully scrutinized, and that all applicable laws protecting monk seals and their habitat have been used and enforced.
3. Management and permitting measures are in place to ensure that people, including scientists and research teams, visiting the Midway Islands or any other atoll in NWHI do not disturb monk seals or restrict their haul-out habitat in ways that could adversely affect monk seal survival, behavior, or population growth.

Factor C. Disease or Predation

Criteria:

1. Credible measures for minimizing the probability of introduction of diseases to any of the NWHI subpopulations, or the spread of diseases from the MHI to the NWHI, or importation of diseases that are not yet present in Hawaii are in place.
2. Contingency plans are in place to respond to a disease outbreak or introduction should this occur.
3. Research measures are in place to monitor population size, vital rates, and possible disease outbreaks or disease introductions, in all the subpopulations.
4. Management measures are in place to minimize shark predation and are demonstrably effective at maintaining predation sources at low enough levels to be consistent with continued meeting of the birth rate and survivorship criterion.

Factor D. Inadequacy of Existing Regulatory Mechanisms

Criteria: Measures are in place to manage fishery interactions and are demonstrably effective at reducing these threats and maintaining fishery-related sources of mortality or stress at decreasing or low levels that are consistent with continued meeting of the birth rate and survivorship criterion.

The principle, direct fishery interaction threat currently facing monk seals are MHI recreational fisheries, particularly gillnets and shore-cast gear, which are managed by the State of Hawaii and known to cause monk seal mortalities. Two monk seals drowned in recreational gillnets on Oahu within the past year. Gillnets will still be used in other areas, and enforcement of the new regulations will be important to ensure that the threat is actually reduced. There is a continuing need for intervention for Hawaiian monk seals in the MHI to remove embedded hooks from recreational fishing; however this effort does not remedy the interaction problem itself. More management measures and enforcement of those measures are needed to ensure that this serious threat is reduced.

Factor E. Other Natural or Manmade Factors Affecting Its Continued Existence

Criteria:

1. Management measures are in place to control male aggression, entanglement, biotoxins, and other sources of human-caused mortality or stress. These measures are demonstrably effective at maintaining these threats at low enough

Estimated Cost of Five-Year Recovery Efforts (in thousands):

	FY 01	FY 02	FY 03	FY 04	FY 05	Subtotal	Total
Crucial Threats							
1. Food limitation	1,920	1,900	1,900	1,900	1,900	9,520	
2. Entanglement	1,260	1,260	1,260	1,260	1,260	6,300	
3. Shark predation	300	300	300	300	300	1,500	
Subtotal - Crucial Threats							17,320
Serious Threats							
4. Infectious diseases	605	585	585	585	585	2,945	
5. Habitat loss	250	50	50	0	0	350	
6. Fishery interaction	200	200	200	200	200	1,000	
7. Male aggression*	*	*	*	*	*	0	
8. Human disturbance	800	800	800	800	800	4,000	
Subtotal - Serious Threats							8,295
Moderate Threats							
9. Biotoxins	250	125	125	75	75	650	
10. Vessel groundings	0	0	0	0	0	0	
11. Contaminants	50	0	0	0	0	50	
Subtotal - Moderate Threats							700
* All included in other costs							
Essential Long-term Recovery Actions							
12. Monitoring & Research	1,550	1,600	1,650	1,550	1,550	7,900	
13. MHI Management Plan	200	200	150	150	150	850	
14. Implement Recovery Plan	170	170	170	170	170	850	
Subtotal - Essential Long-term Recovery Actions							9,600
TOTAL ALL ACTIONS	7,555	7,190	7,190	6,990	6,990	35,915	35,915

ESTIMATED COST OF RECOVERY (FIRST 5 FISCAL YEARS): \$35,915,000

ANTICIPATED DATE OF RECOVERY: The time to recovery is not predictable with the current information, but the best case scenario (which is extremely improbable given recent trends) is that the population could grow to the stipulated total population size in the NWHI within 12 years, and the stipulated numbers in the MHI could be reached within 34 years. Provided that the threats-based criteria have also been met, this would elevate the population to a "threatened" classification. The population may be considered "recovered" if the downlisting criteria continue to be met for 20 consecutive years. Therefore, the total time to recovery is anticipated to be 54 years. The Total Estimated Cost of Recovery can be calculated by multiplying the estimated cost of FY 05 (\$6,990) for the next 49 years. Then add that sum to the estimated cost for the first five fiscal years (in Table above). Realistically, the population is not expected to recover in the foreseeable future. In the future, if more is learned about the causes for the current continuing decline, it should be possible to make more informative projections about the time to recovery, and its expense.

TOTAL ESTIMATED COST OF RECOVERY (54 YEARS): \$378,425,000

levels to be consistent with continued meeting of the birth rate and survivorship criterion.

2. The causes of the anthropogenic threats to the species are clearly identified and are well-enough understood to be controlled or mitigated, and any newly identified threats are controlled adequately before downlisting.

Delisting Criteria:

The population will be considered for a delisting if the downlisting criteria continue to be met for 20 consecutive years without new crucial or serious threats being identified.

ACTIONS NEEDED: The following 14 categories of actions are necessary for the recovery of the Hawaiian monk seal:

1. Investigate and mitigate factors affecting food limitation
2. Prevent entanglements of monk seals
3. Reduce shark predation on monk seals
4. Minimize the risk of exposure to or spread of infectious disease
5. Conserve Hawaiian monk seal habitat
6. Reduce Hawaiian monk seal interactions with fisheries
7. Reduce male aggression toward pups/immature seals and adult females
8. Reduce the likelihood and impact of human interactions
9. Investigate and develop response to biotoxin impacts
10. Reduce impacts from compromised and grounded vessels
11. Reduce the impacts of contaminants
12. Continue population monitoring and research
13. Create and implement a main Hawaiian Islands Hawaiian Monk Seal Management Plan
14. Implement the Recovery Plan for the Hawaiian Monk Seal