

## **STELLER SEA LION and HARBOR SEAL CO-MANAGEMENT ACTION PLAN**

Information and activities needed to help promote  
the conservation of Alaska Steller sea lion and harbor seal populations  
and the co-management of subsistence uses  
of Steller sea lions and harbor seals in Alaska

**Aleut Marine Mammal Commission  
and  
National Marine Fisheries Service**

2013

### **INTRODUCTION**

In November, 2006, an Agreement was signed between the Aleut Marine Mammal Commission (AMMC) and the National Marine Fisheries Service (NMFS). The primary goals of that Agreement are the following related to both Steller sea lion and harbor seals (Species):

1. To promote the sustained health of the Species in order to protect the culture and way of life of Aleut and other Alaska Natives who rely on the harvest of the Species for subsistence uses in the AMMC Region
2. To promote scientific research and the collection of data, including the traditional knowledge of Aleut and other Alaska Natives, in order to facilitate management decisions concerning the Species in the AMMC Region and elsewhere as appropriate;
3. To develop an Action Plan for the conservation of the Species and the co-management of subsistence uses of the Species in the AMMC Region;
4. To identify and resolve, as early as possible, through a consultative process, any management conflicts that may arise associated with the Species; and
5. To provide information to subsistence hunters and the public at large, as a means of increasing the understanding of the sustainable use, management and conservation of the Species.

The Agreement established a Co-management Committee made up of six representatives, three each from AMMC and NMFS, which is charged with preparing and updating an Annual Action Plan. The Action Plan describes what each party will do annually to foster stronger and more regular communication to develop the co-management partnership. A key to the success of this

partnership is to incorporate the spirit and intent of co-management by building trust and by establishing close cooperation, shared responsibility and communication between the two Parties and their constituents. Shared decision-making is through consensus, based on mutual respect and understanding of each Party's cultural perspective. The chairperson for the co-management meeting will be responsible for preparing a new agenda, setting time and location of the meeting and keeping minutes of the meeting. The other party's representatives are responsible for revising and distributing the action plan for the upcoming year. The chairperson shall alternate between NMFS and AMMC annually.

The Annual Action Plan will be the guiding document for joint and separate management actions by the AMMC and NMFS related to the conservation and management of subsistence uses of the Species. In developing and revising the Annual Action Plan, the Committee shall consider technical and non-technical information as it deems appropriate. The Action Plan describes relevant information, specifies mutually agreed upon actions to be implemented by NMFS and the AMMC, and sets forth recommendations for additional activities that promote Steller sea lion recovery and harbor seal conservation. The Action Plan will be evaluated and updated on an annual basis. The Action Plan will be comprised of the following five sections: 1) population monitoring, 2) harvest management, 3) education, 4) research recommendations, and 5) other recommendations.

The AMMC Co-management Agreement specifies that the Action Plan will provide 1) a summary of recent progress and new information and 2) an outline of future goals and activities. The Co-management Committee has agreed that the focus for the Fiscal Year 2013 Action Plan will be on: jurisdiction; development of a 5-year incremental strategic plan aimed at identifying objectives and building AMMC capacity; strengthening AMMC-NMFS communication and collaboration; identifying AMMC and NMFS priorities and collaborators related to analysis of samples from potential future biosampling projects; and in the short term, moving forward on further discussions and plans related to localized harvest monitoring. Focus will be on future goals, and activities directed primarily at Steller sea lion recovery and conservation with the additional consideration of harbor seal harvest monitoring, management and biosampling.

The Action Plan presents, for each subject area, the issue of concern, input received from the council participants on each issue, the actions that will be taken or are proposed to satisfy the issue, with an indication of who will take the lead responsibilities for the action. Actions are to be updated and revised annually, leading to summaries of prior years. This will give both parties a mechanism to evaluate the performance and merit of all agreed upon actions. The time frame for this Action Plan is the twelve months succeeding the AMMC annual meeting (December 2012 to 2013) or the finalization of the Action Plan, whichever is later.

## **1. POPULATION MONITORING**

To achieve its conservation goals, it is fundamentally important that the Co-management Committee have access to accurate information on Steller sea lion and harbor seal populations throughout the Aleutian Region. There are several sources for such information, including

scientific information as well as local and traditional knowledge. Effective population monitoring involves evaluating the best available information on the following topics:

- Population abundance by stock and, as possible, by sub-areas within those stocks;
- Habitat use and seasonal movements (including information on preferred haul-out sites, foraging areas, and prey composition);
- Sources of mortality to Steller sea lions (including the nature, extent, timing, and location of such mortality); and
- Population status by stock and, as possible, by sub-areas within those stocks (including aspects such as trends in abundance, age structure, vital rates, and indices of physical condition).

Current information about the Steller sea lion (*Eumetopias jubatus*): Western U.S. Stock can be found at the following URL's:

<http://www.nmfs.noaa.gov/pr/pdfs/sars/ak2010slst-w.pdf>

<http://alaskafisheries.noaa.gov/protectedresources/stellers/default.htm>

Current information about the Steller sea lion (*Eumetopias jubatus*): Eastern U.S. Stock can be found at the following URL's:

<http://www.nmfs.noaa.gov/pr/pdfs/sars/ak2010slst-e.pdf>

<http://alaskafisheries.noaa.gov/protectedresources/stellers/default.htm>

Current information about the harbor seal (*Phoca vitulina*) stocks in Alaska and the Bering Sea can be found at the following URL's:

<http://alaskafisheries.noaa.gov/protectedresources/seals/finescale.htm>

<http://www.nmfs.noaa.gov/pr/pdfs/sars/ak2009sehr-be.pdf>

#### **A. Estimation of abundance and trends**

Need: Assessment of the abundance (size) and trends of Steller sea lion populations is fundamentally important to conserve and co-manage subsistence use of Steller sea lions in Alaska.

Council/Commission input: The commission needs this information to keep its membership informed and NMFS is mandated by law to estimate the abundance in our stock assessment reports.

Action 1: Aerial surveys to estimate range-wide population abundance. In 2012 land and aerial surveys were conducted in the western Aleutians subarea of the Western Stock of Steller sea lion. Poor weather precluded further Aleutian surveys. Results of NMML Steller sea lion surveys are posted at URL: [http://www.afsc.noaa.gov/nmml/species/species\\_steller.php](http://www.afsc.noaa.gov/nmml/species/species_steller.php)

Lead: National Marine Mammal Laboratory.

Action 2: In 2013, NMML plans to survey pups and non-pups from Southeast Alaska through the eastern Aleutians.

Action 3: In 2013 NMML will be summarizing data from 2008-2012 surveys.

Action 2: In June and July of 2013, NMML and collaborators plan to conduct research on vital rates of Steller sea lions. Activities will include: field camps at Marmot and Ugamak Islands; two ship cruises in the Aleutians and the Gulf of Alaska; pup branding in the Aleutians; the summarization of data on survival rates through age 11 years in the area from the eastern

Aleutians through the eastern Gulf of Alaska; and the study of pup condition at rookeries. In October 2013, NMML and collaborators will conduct research in the central and western Aleutians to capture and tag adult females to study their foraging and to evaluate their condition and health. Lead: National Marine Mammal Laboratory.

### **C. Use traditional knowledge in population monitoring.**

Need: Native hunters and fishermen have frequent contact with Steller sea lions in their natural environment, and their observations and traditional knowledge can inform population monitoring. Population monitoring, by definition, involves a time series of counts, and the comparability of counts requires standardization of effort. Quantifying the frequent observations of Steller sea lions by Native hunters and fishermen as well as Sentinels would contribute substantially to population monitoring and could be used to develop analyses to compare to other data.

Council/Commission input: Many factors influence Steller sea lion populations and subsistence use, therefore more information is valuable to understanding patterns and trends in Steller sea lion abundance and movement.

NMFS input: Observations of particular interest would be those of Steller sea lion presence in AMMC areas during non-summer months. NMFS would welcome working with AMMC to develop protocols for collecting such information in a manner that does not increase disturbance of Steller sea lions.

Action 1: Commissioners annually report marine mammal observations at the AMMC annual meeting to be incorporated into minutes. Lead: AMMC.

Action 2: Over the coming year, NMFS will work with AMMC to develop a format that could be used by AMMC members to capture Steller sea lion opportunistic observations. Lead: NMFS initiated; AMMC input.

### **D. Impacts of contaminants**

Need: Natural disasters pose a contaminant exposure risk in the Aleutian Region most likely in the West; how does this affect Steller sea lions and consumers?

Council input: NMFS and AMMC must work to clearly define roles, concerns and methods to assess contaminant exposure risks.

Action 1: Determine projects that are currently under-way. Obtain and share results. Lead: NMFS

Action 2: Ongoing communication and information sharing as needed among communities. Lead: AMMC.

### **E. Food Habits**

Need: Steller sea lions are known to eat a variety of fish, invertebrates and other small marine mammals. Diet varies seasonally, regionally and probably annually but these variations are

poorly understood. A more complete understanding of prey items used by Steller sea lions is necessary.

Council/Commission input: Past diet information is available, but must be identified and shared with AMMC.

Action 1: Scats are being collected and analyzed for prey composition. Lead: National Marine Mammal Laboratory.

Action 2: Identify and share reports and publications describing Steller sea lion food habits at the annual meeting. Lead: NMFS.

## **F. Stock Identification**

Need: Steller sea lion stocks are well-defined and harbor seal stock divisions are still uncertain.

Council/Commission input: *Decreased populations have been noticed in the harbor seal stocks in the Western Aleutians.*

Action: Update population counts to establish current population trends. Report stock ID for harbor seals. Lead: NMFS

## **G. Fisheries impacts**

Need: Steller sea lions may be killed incidental to both federal and state fisheries, contributing to the direct mortality of this species. Assessment of mortality levels from fisheries, as well as other sources, is a significant component of population monitoring. Steller sea lion entanglement in marine debris has been observed in Southeast Alaska for the eastern stock, and is generally lacking for the western stock. ADFG and others continue to evaluate marine debris entanglement as a source of preventable mortality for Steller sea lions.

Council/Commission input: There is growing interest in large whale entanglements and disentanglement training in the Aleut region.

Action1: Support community observations of entangled Steller sea lions and harbor seals and reporting those observations to the Alaska Marine Mammal Stranding Network. Lead: AMMC

Action 2: Submit a report summarizing available entanglement data from the Alaska Stranding Network. Lead: NMFS

Action 3: Include summary into the annual meeting packet. Lead: AMMC

## **2. HARVEST MANAGEMENT**

To ensure that Steller sea lions and harbor seals are conserved for subsistence uses, the fiscal year of 2012 (FY12) Action Plan will initiate a discussion to develop methods to effectively monitor the number of Steller sea lions and harbor seals harvested each year, the age and sex composition of those harvests, and the condition of animals taken in the harvest in the Aleut Region. In order to assess the necessity of whether new subsistence harvest management is warranted the Parties must have an accounting of the annual subsistence take of marine

mammals. Future Action Plans may include a description of local and/or regional subsistence take levels, composition of take, and harvest practices and their influence on population health when they are available.

Effective harvest management may also include measures to encourage the development of local and/or regional harvest management plans that incorporate local harvest practices and to ensure that Steller sea lions and harbor seals are used for subsistence in a sustainable and non-wasteful manner.

#### **A. Steller sea lion and harbor seal subsistence harvest monitoring**

Need: Steller sea lion subsistence harvests are critical to the nutritional needs of the AMMC communities and accurate harvest counts including struck and lost estimates are relevant human caused mortality sources to be included in the NMFS stock assessment report (SAR).

Council/Commission input: Harvest monitoring to inform and manage is most successful when implemented at the local level.

Action 1: Continue to work with the Alaska Native Harbor Seal Commission on jurisdiction issues in their Native to Native agreement. Lead: AMMC

Action 2: Determine dates and logistics for NMFS and AMMC to participate in an Atka Island hunter workshop. Lead: AMMC

Action 3: Complete Atka harvest monitoring workshop summary. Lead: NMFS

### **3. EDUCATION**

NMFS and the AMMC have agreed to mutually develop ways to educate and promote understanding about Steller sea lion and harbor seal issues among users, resource managers, and other groups. This effort will include:

- providing education on ways to improve hunting and harvest methods, resource utilization and harvest reporting;
- developing a training and internship program to directly involve local people in harvest monitoring, sample collecting, and research;
- involving hunters and subsistence users in planning, prioritizing, and conducting research, and in making regulations and management decisions;
- improving public understanding of Native cultural uses (i.e. subsistence food and handicraft uses) of Steller sea lions and harbor seals and MMPA and ESA provisions regarding subsistence harvest and conservation of the Species; and
- serving as a contact for exchange of information about marine mammals.

Educational efforts should include orientation workshops and other programs for the exchange of cross-cultural information and perspectives. The perspectives may include Alaska Native ways of life, traditional ways of knowing, local concerns, and issues regarding marine mammals and their use by Alaska Natives (i.e., medicinal, handicraft and spiritual uses) as well as agency policies, legal and administrative constraints, and scientific approaches.

Under the Co-management Agreement, it was also recognized that an important role of education is to promote the use of appropriate research ethics. The AMMC and NMFS have agreed to encourage all scientists who plan to conduct research that will occur in Alaska Native villages to advise Native People who are to be affected by the study of the purpose, goals, and time-frame of the research, the data gathering techniques, and possible impacts of the research, and when appropriate; to obtain the informed consent of the appropriate governing body. The Co-management Committee shall assist researchers in identifying appropriate governing bodies.

### **A. Improve understanding**

Need: Many individuals and groups with varying backgrounds and expertise interact with Steller sea lions and harbor seals. Understanding of the issues and specific knowledge may vary with the individual background of those involved. The conservation of Steller sea lions and harbor seals will ultimately benefit if all views and backgrounds are acknowledged. A greater understanding can be achieved among those involved if information is freely exchanged and if information is communicated in such a way that is understood by the recipient.

Council/Commission input: Offer cross-cultural learning opportunities for scientists/managers; teaching about traditional knowledge and how it can be shared and used beyond the community. Educate the general public about the relationship that Natives have with the marine mammals.

Action 1: Present science and management information in a format that is understandable to the general public. Lead: NMFS

Action 2: Provide NMFS with format and content details to transmit science to Alaska Natives. Lead: AMMC

Action 3: Provide opportunity for the AMMC to obtain an annual update on proposed research within AMMC regions by extending invitation to attend annual Steller sea lion research coordination meeting. Lead: NMFS

Action 4: Provide opportunity for Alaska Natives to share TEK with scientists and managers. Lead: AMMC

Action 5: Encourage NMFS-funded marine mammal researchers working in the Aleutians to contact AMMC prior to initiating research to facilitate notification of local peoples. Lead: NMFS.

### **B. Develop training and internship programs**

Need: Actively involving Native peoples in Steller sea lion and harbor seal research, monitoring and management programs achieves better co-management by promoting communication and understanding of both partner's perspectives. Integrating subsistence hunters and users into research, monitoring and management accomplishes several objectives. It promotes (1) a greater understanding of the results of scientific studies, (2) greater stewardship of resources, (3) the opportunity for the incorporation of local and traditional knowledge in the interpretation of scientific results, (4) the establishment of a trained, local work force able to cost-effectively continue studies, and (5) opportunity for local residents and students to receive college credit or on the job experience as research technicians and biologists. Co-management is a process of communication, sharing and collaboration that develops and continues between Alaska Natives and NMFS.

Council/Commission input: Training and internship efforts need to be developed and communicated

Action 1: Encourage Alaska Native students from the Aleut Region to participate in the Alaska Native Science and Engineering Program (ANSEP) at the University of Alaska. Lead: AMMC

Action 2: Share details of NMFS internship and scholarship opportunities with ANSEP. Lead: NMFS

Action 3: AMMC will share details about its MMPA co-management internships with NMFS. Lead: AMMC.

### **C. Disseminate information**

Need: Effective communication is an essential part of education. Recognizing that a diverse group of people are interested in marine mammal conservation and subsistence use, there is a need to make special efforts to ensure that various types of information are made widely available in appropriate and relevant formats. Examples of different groups that are interested in Steller sea lions and harbor seals, and who should be encouraged to share information with others include hunters, scientists, youth, and other individuals throughout village communities. The Co-management Committee is committed to enhancing the exchange and dissemination of information about Steller sea lions and harbor seals wherever possible.

Council/Commission input: None

Action 1: Update the AMMC website quarterly to ensure recent information is available to subsistence users and the public. Lead: AMMC

Action 2: Provide relevant NMFS URLs to AMMC website to ensure most recent marine mammal and fisheries population data are available to subsistence users and the public. Lead: NMFS

Action 3: Post outreach materials in public places within the Aleut region to educate the public about relevant subsistence issues, co-management and conservation topics. Lead: AMMC

## **4. RESEARCH RECOMMENDATIONS**

For conservation and management efforts to succeed, it is vitally important that accurate, reliable, and timely information about Steller sea lions and harbor seals be available for consideration. Having access to such information is central to whether or not the Parties will succeed or fail in meeting the Agreement's objectives. Therefore, under this Action Plan, the term "research" is used in reference to all relevant forms of information gathering, and includes both conducting scientific studies as well as making local and traditional knowledge available for consideration. The Annual Action Plan will identify relevant information gaps that need to be filled to help achieve the action plan's goals. These information gaps will consequently describe research needs that the Co-management Committee recommends be addressed as a matter of priority. The purpose of outlining research recommendations in the Annual Action Plan is to help raise the profile of particular information gaps.

Research recommendations include population trend and health, contaminants, habitat use in

different seasons, and prey abundance.

## **5. OTHER RECOMMENDATIONS**

Under the Annual Action Plan's sections on population monitoring, harvest management, education, and research it is expected that the Parties to the Action Plan will identify a variety of future activities that they can commit to investigating uni- or bi-laterally towards implementation (i.e., by NMFS and/or the AMMC). However, given the wide range of environmental factors and human activities that may impact Steller sea lion or harbor seal conservation, it is likely that the Co-management Committee may identify additional actions that could be helpful to marine mammals, but that are outside the scope of this Action Plan.

Therefore, a list of "other recommendations" will be included in the Annual Action Plan as practical. The purpose of these recommendations will be to highlight various conservation and management needs, and to encourage the appropriate parties to take action in order to assist in the long-term conservation of Steller sea lions and harbor seals and to promote the sustainability of subsistence harvests by Alaska Natives.

### **A. Biosampling**

Biological samples from marine mammals can be a major contributor to environmental studies of the North Pacific and the Arctic oceans. Alaska Native subsistence hunters are in an excellent position to assist in scientific studies by providing biological samples from subsistence-taken animals. The collection of biological samples is also referred to as "biosampling". Biosampling has often been used in the context of subsistence harvest as a stand-alone project; however, the inherent hazard of biosampling in this way is it is a method to collect data not a project. Biosampling without a goal, objective or question to answer often leads to samples being archived without any analysis or interpretation of the results. Over time archival of sampled tissues is expensive, often unsustainable, and ultimately can result in termination of future collections. To avoid such an unproductive process, a study design needs to be developed to ensure biosampling of subsistence harvested marine mammals provides benefits to the consumers and co-managers (that is, does the collection of tissues answer an important management question?).

Marine mammals are inherently difficult to study and the collection and examination of tissues is restricted by regulation and allowed by authorization from NMFS. A potentially invaluable source of fresh specimens exists in Alaska, where coastal Alaska Natives still legally use marine mammals for subsistence or handicraft purposes. NMFS has identified the value of collecting tissues from harvested marine mammals as a means to characterize the level of harvest, the age and sex of the harvest, and diet. AMMC subsistence users have expressed the concern of exposure to environmental contaminants from the consumption of marine mammals.

While Alaska Natives who dwell on the coast of Alaska do not need a permit to take Steller sea lions or harbor seals for subsistence and/or handicrafts, permits and authorizations are required under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA) for anyone to conduct research activities that may result in the "take" of a protected species. If the animal has been taken for subsistence or handicraft, the hunters do not need a permit to transfer samples to a researcher but the researcher must have a permit that covers the species, the type of

part (e.g., blood, blubber, muscle, liver, tooth), and specifies the origin (subsistence hunted).

Need: A long-term marine mammal subsistence harvest monitoring program for the Aleut Region could accurately quantify and characterize the harvest and if included in the design could provide information about diet, health and consumer contaminant exposure. Funding and design considerations are not currently available to further explore the possibility of implementing any type of program.

Council/Commission input: Information regarding permitting for collecting and transferring biological samples from the subsistence harvest is important to ensure harvesters and others who may collect biological samples from marine mammals are in compliance with the appropriate laws.

Action 1: Investigate questions and concerns from the subsistence users and communities to determine priorities and interest in the development of a harvest monitoring and/or biosampling program or project. Lead: AMMC

Need: NMFS coordinates the Alaska marine mammal stranding network and has limited participation in the Aleut Region from Alaska Natives. Volunteers participate in the marine mammal stranding network by reporting live and dead marine mammal stranding observations and assisting with response as practical. Stranding response may include handling, tissue sampling, and data collection. Marine mammal entanglement in marine debris is considered stranding in Alaska and documenting and reporting instances is valuable to management and conservation of marine mammals including Steller sea lions and harbor seals.

Council Input: None

Action 1: NMFS to continue to provide information from the stranding program to the AMMC.

Lead: NMFS

Action 2: The AMMC will disseminate the stranding hotline number to members and will take steps to encourage AMMC members and other local residents to report stranding of seals, sea lions, or whales to the NMFS hotline and to document strandings. Lead: AMMC.