



The Alaska Sea Otter and Steller Sea Lion Commission

Fall 2019 Newsletter

IN THIS ISSUE:

Report from the
Commission Page 1
TASSC Info Page 2
The blob returns Page 3
MMC Review of
Co-management ... Page 4
Microplastics in
our Waters Page 6
Membership Page 8

REPORT FROM THE COMMISSION

Happy fall equinox and welcome to the fall and winter months! We hope you have had a productive and fruitful summer. It certainly was an unusual one with the record breaking heat and a lack of rain throughout the state. We want to hear from you on how the changing weather impacted your area. If you saw increased numbers of stranded marine mammals, changes in fish movement or type, such as more or less bait fish, increased jellyfish, or fish or marine animals showing up that do not commonly come to your area.

One of the things we are working on is to refine the biosampling program for Steller sea lions so that if you are in a time crunch, a subset of samples and data can be collected that represent high priority samples and the minimum of data that would be useful to know about the harvest. These include collecting a whisker, skin sample, and a tooth if you have time, and recording estimated age, sex, and location of harvest. We are still working to identify exactly what these priority samples should be. We recognize that there will be times when it is not possible to conduct a full biosampling session due to weather, falling light, changing tide or other

.... continued on page 2

Seldovia Sunset

Preserving the balance for Alaska Natives and Marine Mammals

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The Alaska Sea Otter Commission was formed in 1988 to promote Native participation in resource policy decisions affecting sea otters and their uses. In November, 1998, the Commission expanded its role as a statewide organization to advocate on behalf of Steller sea lion and Alaska Native relationships. The organization officially expanded to The Alaska Sea Otter and Steller Sea Lion Commission (TASSC).

OUR GOALS ARE TO:

- Develop and implement programs and projects that focus on Alaska Native and tribal participation in sea otter and Steller sea lion conservation, management and artistic development.
- Strengthen TASSC operational capacity, communications and outreach, and build TASSC operational and program resources.
- Work with regulatory agencies, tribal governmental and Alaska Native Organizations to build better relationships and work toward the common goal of conservation and management of healthy sea otter and Steller sea lion populations in Alaska.
- Educate and inform our youth and the public on the traditional and contemporary relationship between the sea otters and Steller sea lions and Alaska Natives.

REPORT *continued from Page 1*

time or safety constraint. Collection of samples and relevant data is important, however safety is of the highest priority. Adult sea lions are big animals and we know the effort required to tow them to shore and conduct a biosampling session. We hope that introducing this new sampling approach will be useful and helpful to our biosamplers.

Please keep an eye on your mailbox for our 2020 calendar. TASSC staff worked closely with NMFS staff for it be attractive and interesting. We hope that you enjoy it and find it useful in the coming year.

We will be working to update our website more frequently and use Facebook and social media to notify people when changes are made to our website, so please follow us on Facebook: <https://www.facebook.com/The-Alaska-Sea-Otter-and-Steller-Sea-Lion-Commission-127492514005713/>

As indicated in our last newsletter, we are focusing our efforts on management planning, outreach and we continue to be interested in subsistence harvest and usage patterns. Of particular interest is:

- Are sea lions and other marine mammals are as accessible as they used to be?
- Are you harvesting the same numbers of marine mammals now as you did in the past?
- Are the kids and young adults in your community participating in hunting or skin sewing?
- What are your priorities for marine mammals and subsistence now and into the future?
- Are the current regulations regarding marine mammal harvest inhibiting your families use of marine mammals?

We are always open to hearing from you. Please do not hesitate to contact us by phone, email, or on Facebook messenger.

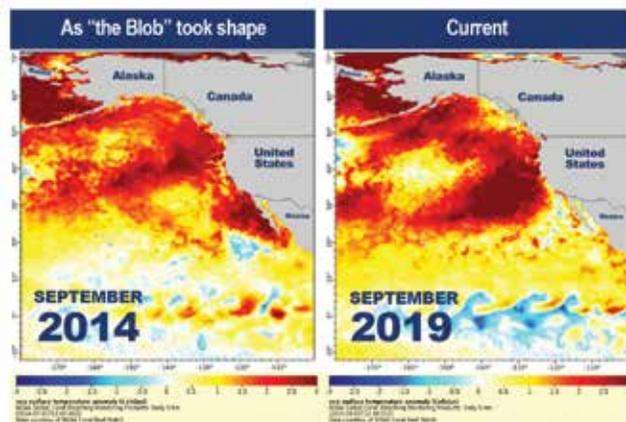
Lianna Jack Peterson

THE BLOB MAY BE BACK

Researchers reported earlier this month that the warm water phenomenon in the Eastern North Pacific Ocean that occurred from 2014 - 2016 and was dubbed “the Blob,” may be back. It is officially called Northeast Pacific Heatwave of 2019 or NEP 19. The warm water mass of NEP 19, or the Blob 2 has already been in place for over 100 days. NOAA researchers will be sailing out late September from Oregon on a 10-day cruise to collect a whole suite of samples and measurements, including salinity, oxygen concentrations, water temperatures, as well as seeing what kind of marine life/microscopic organisms . While the Blob 2 has been in place for over 100 days, it is still in its infancy scientists say, and could dissipate at any point. But it’s well worth tracking the Blob and determining how far the warm water extends.

The first Blob had far reaching effects on the North Pacific and its marine life. Marine mammals and birds stranded from Alaska to California, caused sea lion pup deaths in California, the change in microorganisms affected juvenile salmon, Pacific cod populations in Alaska, both important prey for Steller sea lions, massive areas were affected by harmful algal blooms, there were numerous fishery disasters, changes in weather patterns and more.

However, the Blob 2 has developed differently than the first. The first Blob formed in the fall and winter, whereas this one formed over the summer. Depth is also significantly different. The warmer waters seem to be limited to the surface, whereas in the prior event, the warm water extended quite deep into the ocean. That is promising that it may not develop into the event that occurred before, but is well worth watching what happens. If the surface waters are not stirred up then we may be looking at an event like the first.



Source: NOAA.
Abnormally warm sea surface temperatures; the Blob in 2014 and 2019. The Blob is the reddish/orange masses near the West Coast.

Sources and for more information:

- <https://www.integratedecosystemassessment.noaa.gov/regions/california-current/cc-projects-blobtracker>
- <https://www.fisheries.noaa.gov/feature-story/new-marine-heatwave-emerges-west-coast-resembles-blob>
- <https://www.washingtonpost.com/weather/2019/09/21/blob-is-surging-back-pacific-leading-fears-mass-die-offs-marine-life-unusual-weather-patterns/>
- <https://alaskapacificblob.wordpress.com/2019/09/17/has-the-blob-returned/>
- <https://www.oregonlive.com/environment/2019/09/return-of-the-blob-oregon-researchers-investigate-latest-marine-heatwave-that-could-hurt-pacific-ecosystems.html>

U.S. MARINE MAMMAL COMMISSION REVIEW ON CO-MANAGEMENT

by Dr. Jenna Malek, NOAA Fisheries

Marine mammal co-management between Alaska Native Organizations (ANOs) and federal agencies (National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (FWS)) was formalized through the Marine Mammal Protection Act (MMPA) in 1994. Over the course of the last 25 years, funding and the evolving relationships between the partners has affected the success of co-management. The US Marine Mammal Commission (MMC) conducted a co-management review in 2008 to hear how co-management had been implemented and identified recommendations for improving these relationships. When MMC visited Arctic hunting villages in 2016, they heard many of the same frustrations and issues that were identified in 2008. Based on the feedback received in 2016, and with the recommendation of the Indigenous Peoples' Council on Marine Mammals (IPCoMM), MMC initiated a new co-management review in 2018 with funding from the North Pacific Research Board (NPRB). Dr. Jenna Malek and Vicki Cornish of MMC were co-principal investigators (PIs) on the review and Jenna relocated to Anchorage in early 2018 to become more immersed in the Alaska co-management culture.



Steering Committee Members (from left to right in photo): Jon Kurland, NMFS Alaska Regional Office; Vera Metcalf, Eskimo Walrus Commission; Billy Adams, Ice Seal Committee; Lauren Divine, Aleut Community of St. Paul Island; Jennafer Malek, Marine Mammal Commission; Vicki Cornish, Marine Mammal Commission; Taqulik Hepa: North Slope Borough Department of Wildlife Management; Patrick Lemons, Marine Mammals Management, FWS Alaska Region. Not pictured: Peggy Osterback, Aleut Marine Mammal Commission; Pamela Lestenkof, Aleut Community of St. Paul Island (photo: Mike Miller).

The co-PIs first assembled a Steering Committee of ANO representatives and federal agency staff well-versed in co-management to guide and focus the review. The main review objectives were to:

- 1) develop a “working” definition of co-management;
- 2) identify important characteristics of, and major impediments to, effective co-management;
- 3) provide recommendations for improving co-management relationships that account for the constraints on available resources, including funding.

The Steering Committee began by defining co-management for the purpose of the review. They agreed upon the following:

“A partnership based on trust and respect, established between an Alaska Native Organization, as defined by the MMPA, and either NMFS or FWS, with shared responsibilities for the conservation of marine mammals and their sustainable subsistence use by Alaska Natives.”

For the second objective, the co-PIs wanted to capture the perspectives of all co-management parties: ANOs, marine mammal hunters/harvesters/resource users, and federal agency partners (NMFS and FWS). Because of time and funding limitations, it was not possible to work with all of the ANOs with active co-management agreements. With help from the Steering Committee, the co-PIs selected 3 ANOs/agreements to serve as ‘case studies’, capturing some of the diversity of how ANOs are structured (e.g., geographic region, number of species managed, number of members villages, federal agency partner). They selected the Eskimo Walrus Commission,

CO-MANAGEMENT REVIEW *continued...*

the Aleut Community of St. Paul Island, and the Aleut Marine Mammal Commission. The co-PIs recognized that because the review was focused on only 3 of the 10 ANOs with active agreements, the findings may not necessarily be representative of all ANOs and the recommendations may not be applicable to all co-management relationships.

With further guidance from the Steering Committee, Jenna traveled to Utqiagvik (with Vicki), Gambell, Savoonga, Nome, St. Paul, Akutan, and Atka during the summer of 2018 to capture the perspectives of ANOs, hunters, harvesters, and resource users. Steering Committee members accompanied her on many of the trips and helped arrange meetings with ANO representatives and focus groups with marine mammal users. Jenna also conducted interviews with NMFS and FWS staff, resulting in the collection of information from 70 participants across the parties (ANOs, villages, and agencies).

Analysis included identifying common themes heard from all parties (the findings), which were then used to develop recommendations. The findings fell into the following overarching categories: Key Elements of Co-Management; Partner Roles and Expectations; Communication; Organizational Structure and Accountability; Leadership Training and Transitioning; Agency Practices and Decision-Making Processes; and Challenges of Subsistence Hunting and Harvesting, and the Future of Co-Management.

The co-PIs developed suggested actions for each recommendation that the different co-management parties can apply to their relationships. For brevity, an example action for ANOs and/or resource users is provided below. Please see the final report for a complete list of actions for all parties.

Co-management partners should clearly define and mutually agree upon their respective roles, responsibilities, and accountability mechanisms, and be more transparent regarding partner limitations, through actions such as:

- Communities/resource users working with ANOs

to understand the roles and responsibilities of ANO members, and helping hold members accountable for fulfilling their responsibilities

Co-management partners and stakeholders should work cooperatively to strengthen communications, trust, and respect within and among partners through actions such as:

- ANO leadership ensuring that newly elected community leaders are informed about ANO missions and the expectations of appointed community representatives

New generations of Alaska Natives should be exposed to and provided opportunities to engage in a range of co-management activities through actions such as:

- Communities supporting Alaska Native youth involvement in opportunities related to co-management and leadership

The effectiveness and efficiency of co-management (ANO) structures should be assessed and alternative structural models should be considered as appropriate by:

- ANOs working together to consider the structure of co-management and how well it promotes shared goals

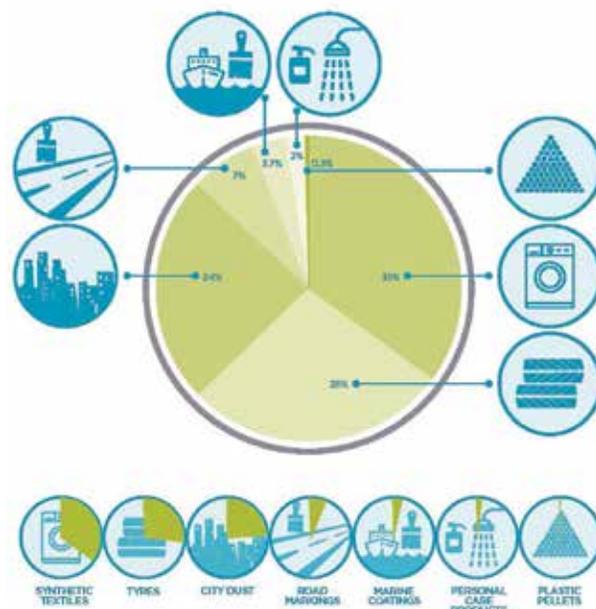
Jenna returned to almost all of the participating villages in spring 2019 to share results of the review and receive feedback to incorporate into the final report. The co-PIs hope that co-management partners will use the recommendations and actions as a toolbox that they can tailor to fit the needs of their particular relationship. The full report can be accessed electronically on the MMC Website.

Following-up on the co-management review, Jenna transitioned to a Marine Mammal Specialist position with NMFS in April and is collaborating with TASSC on the co-management of Steller sea lions. She hopes to work with TASSC and other groups to incorporate relevant recommendations from the review into their co-management relationships.

MICROPLASTICS IN OUR WATERS

Record amounts of microplastics, tiny particles of plastics up to 5 millimeters in size, have been found in the Arctic. Microplastics can come from a variety of sources. There are 2 types of release into the environment, a primary and a secondary release. A primary release is when small particles of plastic are released directly into the marine environment. A secondary release is where microplastics are formed due to larger pieces of plastic degrading once they are in the ocean (from the sun, wind, currents, being crushed by ice, etc).

The IUCN¹ estimates the primary release of 1.5 million tons of microplastic into the ocean each year. This is equal to each person in the world throwing a plastic grocery shopping bag into the ocean every week for the entire year¹. Globally, when considering synthetic sources, almost 2/3 of the release of microplastics into the ocean are from washing synthetic textiles and from tire erosion (63.1% combined). If we include natural rubber tires, they account for almost half (46.2%) of microplastics into the marine environment. Following that, considering just synthetic sources, city dust contributes almost ¼ of microplastics into the ocean (24.4%). Other sources include road markings, marine coatings, personal care products and plastic pellets.



(Boucher & Damien, 2017¹)

Looking at where the microplastics originate, they really come from all over. Every world region contributes microplastics to our oceans.

This summer, Russian Scientists found microplastics along the entire route of the Northern Sea Route², also known as the Northwest Passage, a 900 mile ocean route that includes all Arctic seas and connects the Pacific and Atlantic Oceans. Ocean and atmospheric currents bring these tiny particles north to the Arctic and sea ice has been found to be “trap” for these microplastics.

Sitka Tribe of Alaska began testing their local butter clams and blue mussels for the presence of microplastics. This last winter, they found that microplastics were present in both species; in all samples of butter clams and in most of the mussel samples. The microplastic does not present as plastic pieces, but rather microfibrils, that look like very thin hairs. STA Researcher, Helen Dangel, says that they are likely coming from synthetic clothing such as nylon or polyester, and entering the ocean ecosystem through wastewater³.

This not a reason to stop the use of our traditional foods - these microplastics are found throughout the environment at this point and traditional foods are much healthier and a culturally rich option than what can be found at any store.

MICROPLASTICS *continued ...*

Looking forward, what practical things can we do to reduce our contribution of microplastics and plastics into the ocean? Since synthetic fibers and tire erosion contribute almost 2/3 of the total microplastics entering the ocean, using filters or other devices to collect the microfibers from our wash is a concrete and achievable step that we can take to reduce our contribution of microplastics to the environment (links below).

Other actions include:

- Filling the washing machine fuller results in less abrasion and thus less microplastics released.
- Using a colder wash setting.
- Wash synthetic clothing less often and for a shorter duration.
- Avoid purchasing poorly made, synthetic “fashion” clothing.
- Consider purchasing more natural fiber clothing and textiles.

Sources and for more information:

¹ <https://portals.iucn.org/library/sites/library/files/documents/2017-002.pdf>

² <https://www.arctictoday.com/russian-scientists-found-microplastics-along-the-entire-northern-sea-route/>

³ <https://www.alaskapublic.org/2019/02/06/microplastics-found-in-sitka-mollusks/>

⁴ <https://www.plasticpollutioncoalition.org/blog/2017/3/2/15-ways-to-stop-microfiber-pollution-now>

Filers and devices:

- <https://guppyfriend.com/en/>
- <https://coraball.com/>
- <http://www.environmentalenhancements.com/> (Lint-Luv-R external filter)
- <https://filtrol.net/> (Filtrol 160 external filter)



