

Elder Quotation:

“Subsistence has changed drastically because living in the village is different from living in the big city. Nowadays, I’ve become part of the big city, unable to qualify for any of the hunting permits. I applied for a caribou permit once, and I was denied because I did not have enough points. I was disheartened. Here I am an Alaska Native who can’t even get a caribou hunting permit. What am I supposed to do? How am I supposed to live a life of subsistence the way we used to when I was a boy?

It’s been a challenge for me to talk about stuff like this. It was especially hard for me to talk about the earthquake and the tsunamis that destroyed our village. But it did me good to get it out like that. Our people have been hurt so much. Think about the 1964 Good Friday Earthquake and the Exxon Oil Spill in 1989 happened on the same day exactly twenty-five years apart. Both events – natural and man-made – devastated our culture. The oil spill ruined our subsistence practices for a long time.

But we’re strong: we’ve endured. Sometimes you have to change in order to grow. If you don’t change, you’re not going to grow; and a lot of people are stuck in that. I think subsistence is important for the younger generations. Somewhere down the road they will want to reclaim part of our history, especially how to live off the land and the sea. But they’re not going to have any idea how to do those things. They don’t know which berries to pick, how to skin a seal, how to render seal oil, or when and where to gather seagull eggs or clams or cockles. I never realized it until I left Cordova, but I could get whatever I wanted to eat within thirty minutes in any direction. I grew up eating black bear, seal, salmonberries, cockles, herring, clams, herring eggs, ducks, and even gumboots. Today a lot of people have no idea what gumboots are. They ask, “What do they look like? What do they taste like?” Well, they are a little rubbery, but you can eat them.”

- Steve Eleshansky¹

Grade Level: 9-12



Overview: In a changing world how can the Suqpiat and Eyak people sustain their traditional subsistence practices? What were once matters of tribal tradition and lifestyle are now the subject of governmental regulation and changing lifestyles. How do traditional harvest patterns, multiple user group pressures, population growth, and climate change intersect? How can subsistence harvesters affect government management of fisheries?

Standards:

AK Cultural:	AK Content:	CRCC:
D1: Acquire in-depth cultural knowledge through active participation and meaningful interaction with Elders.	Science C (2): A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science and should (2) develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms;.	L1: Students should understand the value and importance of the Sugt'stun language and be actively involved in its preservation.

Lesson Goal: To define and sustain the subsistence lifestyle in terms of harvesting food from the sea and the traditional ecological knowledge.

Lesson Objectives: Students will:

- Discuss cultural and regulatory definitions of subsistence harvesting
- Research relevant subsistence foods regulation
- Prepare a Subsistence Regulatory Proposal and/or testimony for the Board of Fisheries
- Learn to pronounce the Sugt'stun and Eyak vocabulary

Vocabulary Words: Sugt'stun Dialects

English:	PWS:	Lower Cook Inlet:	<u>Eyak:</u>
our traditional lifestyle	<i>sumacerpēt</i>	<i>sumacerpēt</i>	
foods from the sea	<i>imarlat neget</i>	<i>imarlat neget</i>	
herring eggs	<i>ialuahpat qahyait</i>	<i>ialuahpat qahyait</i>	<u>waaw k'udA'uhdg</u>
fish eggs	<i>iqalut qahyait</i>	<i>iqalut qahyait</i>	<u>te'ya' k'udA'uhdg</u>
seabird eggs	<i>nahuyat peksuit</i>	<i>nahuyat peksuit</i>	

Materials/Resources Needed:

- **Classes 1-4** – access to internet for research; computer projector
- **Class 1** – subsistence dish to share (ideally made with herring eggs or sea bird eggs and items for eating food (paper plates, napkins, serving spoon, cutlery)

Kit Library:

Book: Salomon, A.K. (2011). *Imam Cimiucia = Our Changing Sea*

Book: Smelcer, J. E., & Young, M. A. (2007). *We are the Land, We are the Sea: Stories of Subsistence from the People of Chenega.*

Book: Stamp, B.A. (2010). *Chenega as I saw It – It's People.*

Book: Tabios, D. (2000). *Looking Back on Subsistence: Interviews with Elders of the Chugach Region.*

Web Resources:

19th Century Subsistence Diet

- <https://alutiiqmuseum.org/images/stories/exhibits/WildFoodsTable.pdf> Six page summary of references to Alutiiq wild food harvest and consumption from (mostly) Russian early 19c accounts in Kodiak region

Board of Fish

- http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2017-2018/proposals/2017-2018_proposal_book.pdf How to submit regulatory proposals to Board of Fisheries; Summary of current proposals
- How to submit a proposal to Board of Fisheries
<https://www.facebook.com/YukonRiverFishingADFG/videos/vb.1372765689413207/1723866814303091/?type=2&theater> Use this video as an example guide to produce own video that pertains to specific issue and region.

Subsistence Definition

- <http://www.adfg.alaska.gov/index.cfm?adfg=subsistence.main> ADF&G definition
- <https://www.youtube.com/watch?v=8cxtL5Z5mao> ‘This is Indian Country with Billy Frank Jr.: Native Alaska and the Big Oil Spill’(59:38) 9:45-12:50 Discussion of Exxon Valdez Oil Spill court case ‘reopener clause’ and effect of 1971 Alaska Native Claims Settlement Act elimination of sovereign hunting and fishing rights; 13:40-15:05 Subsistence Defined

Subsistence Resource Management

- <https://akncurriculum.com/videos/> Unit 4- Subsistence – Overview of state and federal subsistence management (53 minutes)
 - Subsistence as Defined by Native Leaders (0-11:30)
 - Subsistence Laws (ANILCA & ANCSA) (11:30-24:00)
 - Federal and State Subsistence Management (24:00 - 28:10)
 - Katie John Cases (State and Fed. Subsistence Mgt Responsibilities) (28:10-34:00)
 - Marine Mammal Subsistence Management (34:00-44:00)
 - Traditional Knowledge and Governmental Resource Management (44:00-52:00)
- <http://www.adfg.alaska.gov/index.cfm?adfg=process.commissioner> Alaska State constitutional authority for natural resource management
- <http://www.adfg.alaska.gov/index.cfm?adfg=subsistenceregulations.main> Subsistence preference
Alaska state law directs the Board of Game and Board of Fisheries to provide a reasonable opportunity for subsistence uses first, before providing for other uses of any harvestable surplus of a fish or game population [AS 16.05.258 (b)]. This is often referred to as the “subsistence preference” or sometimes the “subsistence priority
- <http://www.alaskaseafood.org/sustainability/#families> In Sustainability Brochure - one page graphic of State, Federal and International Management of Alaska’s Fisheries and areas of responsibility

Traditional Ecological Knowledge (TEK) and Western Science

- http://ankn.uaf.edu/Curriculum/Articles/BarnhardtKawagley/Indigenous_Knowledge.html Article Abstract with Venn diagram of TEK and Western Science comparison

Herring Population Decline

- <https://www.youtube.com/watch?v=LlpqIc6fsY0> (also www.pwssc.org/herringsurvey) Herring population collapse overview in Prince William Sound and still unknown cause
- <http://pwssc.org/gwgu-egg-harvest/> Retrieved 6.20.2018 Announcement of 2018-2021 Project quantifying subsistence egg harvest effect on glaucous winged gull nest success

Teacher Preparation:

- Review Activities and practice Sugt'stun or Eyak vocabulary.
- Herring eggs, Salmon eggs, and seabird eggs were chosen as the focus for this project because each represents an aspect of the changes in the environment and subsistence lifestyle. Herring returns since the Exxon Valdez oil spill, are considerably weaker. There has been no commercial herring harvest since the early 1990s. Tastes have changes and fermented salmon eggs are infrequently consumed today. Beebles and salmon caviar are much more popular. The government forbade the collection of sea bird eggs for so many years that the tradition of gathering eggs from nests has almost been lost.
- Class 1: Invite Elder to discuss meaning of subsistence to him or her.
- Class 1: Prepare a subsistence dish using food from the sea to share with the class or ask a student parent to prepare one. (*Ideally the dish should include herring eggs, salmon eggs, or sea bird eggs.*)
- Class 1: Assemble any needed tableware, napkins, etc., needed to share food.
- Class 2: *Optional* – Invite a representative from the Alaska Department of Fish & Game to share information and insights regarding resource management and how regulations are formulated.
- Class 2: *Optional* – Invite a community member who has submitted regulatory proposals to or testified before the Board of Fisheries.
- Class 5: *Optional* – Invite Elders and community members to serve on the mock Board of Fisheries to hear student testimony.
- Before the Elder or Recognized Expert arrives, review with all of the students, ways to show respect for the Elder during his or her visit.

Opening: The Sugpiat and Eyak peoples have always lived off the land and sea and many continue to practice a subsistence lifestyle today. With the advent of modernity and growing population pressures, the subsistence lifestyle/*sumacerpet* now exists in a highly regulated environment. State and federal regulators oversee the management and usage of local resources among all user groups from commercial fishermen to sportsmen to personal users to subsistence harvesters. How do subsistence practices and cultural traditions/ *sumapercet* mesh with the modern world?

Activities:

Class I:

1. Invite students to define 'subsistence lifestyle'/*sumacerpet* of local resources.
2. Write students' ideas on white board.
3. Read the Alaska Dept. of Fish & Game's definition of subsistence use:

What is Subsistence use?

Subsistence fishing and subsistence hunting are important for the economies and cultures of many families and communities in Alaska. Subsistence uses of wild resources exist alongside other important uses of fish and game in Alaska and are especially important for most rural families, who depend on subsistence hunting and fishing as sources of nutrition and cultural practices. An estimated 36.9 million pounds of wild foods are harvested annually by rural subsistence users. Residents of more populated urban areas harvest about 13.4 million pounds of wild food under subsistence, personal use, and sport regulations

<http://www.adfg.alaska.gov/index.cfm?adfg=subsistence.main>

4. Read the quotation from Steve Eleshansky above and discuss how the students and Native perspective on subsistence activities fits, or doesn't, with the ADF&G definition.

**Optional:* Watch the definitions of subsistence from a Native perspective in "This is Indian Country with Billy Frank Jr: Native Alaska and the Big Spill" (See above, 13:40-15:05).

5. There are always tensions between user groups as to how access to resources should be controlled. Traditional usage/*sumacerp* was based on careful observation of local resource availability and personal need. Consider these recollections by Chenega villagers about the 1950s and 60s:

Pete Kompkoff, Jr.: *And there was so much fish around it was just unbelievable, and we kept the creeks from over-spawning. That's where we got the fish, from illegal waters.*

Don Kompkoff, Sr.: *That's the reason why there was a lot of fish, because we took the fish that were going to be over-spawned. The second run that comes in, it wipes the others out, and the way we were doing it, we'd take some out of each creek. Take a few fish out of here, a few fish out of there, and then the next year it would be the same amount come back or even more.*ⁱⁱ

4. The Sugpiaq and Eyak peoples consider their subsistence lifestyle/*sumapercet* an integral part of their cultural heritage. Consider this observation by Patrick Selanoff of Chenega and Valdez:

"I think one of the most important things about subsistence foods is the taste. It's totally different from hamburgers or pizza. It's got its own unique taste. But I think the most important thing is just gathering it. It's healthy to be out there harvesting food. We don't realize it, but subsistence keeps us safe. It keeps the family together. It keeps us busy. If somebody catches something, pretty soon there's a bunch of people around them trying to get some of what was caught. Everyone's mingling with each other. I think subsistence helps us bond with each other. It strengthens our community."

- Patrick "Sweeney" Selanoff, Jr.ⁱⁱⁱ

5. Share a subsistence food from the sea/*imarlat neget* (ideally using herring eggs, salmon eggs, or seabird eggs) and invite Elder to talk about how the food was harvested, processed, and

shared and how any of these practices have changed over time and why (*possibilities: changing climate, changing resource availability, changing tastes, changing regulations...*).

6. Invite the Elder to share personal experience with regulatory compliance. Were the ingredients for this shared food difficult to obtain? Did harvesting depend upon the time of year, the tides, the weather, and/or the regulations? How should the subsistence lifestyle/*sumapercet* be preserved and protected?

7. Direct students to research ADF&G regulations regarding the harvest and use of the subsistence ingredients in the subsistence dish shared in class (or another food of the students' choice) and prepare to share their results in the next class.

**Optional:* Homework – Have students interview Elders, family, and community members about which fisheries' regulations they find particularly helpful or problematic.



Sea Bird Egg Delivery ca.1900-1915; Photo courtesy of San Francisco Maritime Museum

Class II:

1. Have students share the result of their regulation research. Which agencies have jurisdiction over the harvest of food from the *sea/imarlat neget*?
2. Display <http://www.alaskaseafood.org/sustainability/#families> ‘Sustainability’ brochure and review its one page graphic illustrating the State, Federal and International Management of Alaska’s Fisheries and their areas of responsibility over food from the *sea/imarlat neget*.
3. Watch clip from “This is Indian Country with Billy Frank Jr: Native Alaska and the Big Spill” (See above, 9:45-12:50) discussing the Exxon Valdez Oil Spill court case ‘reopener clause’ and the practical effect of the 1971 Alaska Native Claims Settlement Act’s elimination of sovereign hunting and fishing rights in return for land ownership and cash settlements.
4. Watch clip <https://akncurriculum.com/videos/> Unit 4- Subsistence – Overview of state and federal subsistence management (53 minutes)

**Optional:* Invite a representative from the Alaska Department of Fish & Game to share information and insights regarding resource management and how regulations are formulated.

**Optional* – Invite a community member who has submitted regulatory proposals to or testified before the Board of Fisheries to share information and insights about Board of Fisheries’ procedures and his or her personal experience with the process.

5. The Alaska state constitution provides for the management of its natural resources including food from the *sea/imarlat neget* for the maximum benefit of the people:

Unlike many states in the union, Alaska enshrined its regard for natural resources in its constitution. Article 8 — Natural Resources lays out the framework for management of renewable resources: ...

*§ 2. **General Authority** — The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the state, including land and waters, for the maximum benefit of the people.*

*§ 3. **Common Use** — Wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use.^{iv}*

6. It is the role of the Alaska Board of Fisheries to conserve and develop Alaska’s fisheries resources:

Board of Fisheries is the state's regulatory authority that passes regulations to conserve and develop Alaska's fisheries resources. The Board of Fisheries is charged with making allocative and regulatory decisions. The board has seven members, each appointed by the governor for a three-year term. Each member must be confirmed by a joint session of the state legislature.^v

7. Citizen participation is both essential to the regulatory process and encouraged:

The Alaska fisheries and game regulatory process is among the most open regulatory processes in Alaska if not the nation. Alaska’s fish and game users are encouraged to

participate through appointments to the Boards of Fisheries or Game, service on one of 84 advisory committees across the state, submitting proposals for regulatory change, providing written and oral comments, and working with the boards at scheduled meetings. Work conducted by the boards of the Alaska Department of Fish and Game is facilitated by the Boards Support Section.^{vi}

8. Subsistence uses of resources have priority over other user group interests.

“...Board of Game and Board of Fisheries to provide a reasonable opportunity for subsistence uses first, before providing for other uses of any harvestable surplus of a fish or game population [AS 16.05.258 (b)]. This is often referred to as the “subsistence preference” or sometimes the “subsistence priority.”^{vii}

9. Describe how citizens may provide input into Board of Fisheries decisions. (See opening page of Board of Fisheries proposals book:

- <http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2018-2019/proposals/intro.pdf> (Remember to update the website to correct year.)

10. Discuss how fisheries observations from Elders (TEK) can inform testimony and regulatory proposals before the Board of Fisheries. The Inuit Circumpolar Conference 2014 defined TEK:

“Traditional Knowledge is a systematic way of thinking applied to phenomena across biological, physical, cultural and spiritual systems. It includes insights based on evidence acquired through direct and long term experiences and extensive and multigenerational observations, lessons and skills. It has developed over millennia and is still developing in a living process, including knowledge acquired today and in the future, and it is passed on from generation to generation.”^{viii}

*Optional: Review the Venn diagram comparing TEK and Western Science and their areas of overlap.

11. Divide class into research teams to investigate the subsistence harvest of herring eggs/*ialluahpat qahyait*, salmon eggs/*iqalut qahyait*, and seabird eggs/*nahuyat peksuit* over the next two classes. Each of these three foods has experienced significant changes: Herring eggs are not as plentiful as they once were, particularly post oil spill. The taste for traditional fermented salmon eggs is fading. Seabird eggs were placed off limits for harvest for such a long time that many communities almost lost the tradition for gathering them.

Research Team Project Guidelines:

- Research traditional harvest and usage patterns for their assigned topic.
- Research applicable regulations.
- Interview Elders and community members regarding harvest changes and reactions to regulations over the years.
- Identify pertinent regulations that either should be maintained to preserve subsistence traditions or ‘unduly’ limit traditional harvest practices.
- Prepare testimony and/or a regulatory proposal incorporating TEK to present to the Board of Fisheries.
- Present such testimony before a mock Board of Fisheries in Class 5 prepared to defend their work.

- *Optional:* Students can opt to make a videotape on how to submit a proposal regulation that pertains to their region, similar to the ADF&G Yukon Fisheries video.
 - <https://www.facebook.com/YukonRiverFishingADFG/videos/vb.1372765689413207/1723866814303091/?type=2&theater>

Class III: Research

Opening: – Review the variety of subsistence foods noted in 19th century European accounts of the Kodiak Alutiiq. (See <https://alutiiqmuseum.org/images/stories/exhibits/WildFoodsTable.pdf> listed above.)

1. Research teams work on projects.
2. *Homework:* Survey family and community members about their experiences with harvesting their target subsistence resource.
 - a. How does respondent harvest and/or use the subsistence resource?
 - b. Has respondent noted changes over time in resource harvest and use?
 - c. How have regulations affected the subsistence resource harvest?
3. Remind the students to be prepared to share their survey results!

Class IV: Testimony Preparation

1. Have research teams studying like subsistence resources pool their survey answers and quantify their results.
2. Have students conclude their research and prepare their testimony. Each research team must present a regulation for consideration or testimony to support or contest an existing regulation.
3. Research team suggestions **must** incorporate TEK.

Class V: Mock Board of Fish

1. Set up a seven-member mock Board of Fisheries (aka Board of Fish) to hear student testimony. While just one student from each research team may testify Board of Fish members should be encouraged to ask for any support or clarifications from the entire team regarding their methodology, TEK, or their understanding of the subsistence lifestyle/*sumacerpet*.

**Optional:* Invite Elders, Community Members who have testified before the Board of Fish, and ADF&G representatives to serve as mock Board members.

2. Have students present their testimony. All students not serving on the Board of Fish may blog their observations about the testimony and how successfully it integrated TEK into its proposals.
3. With the Board of Fish members and student bloggers discuss the subsistence regulatory process and any insights gained.
4. *Optional:* Invite students to submit their testimony to the Alaska Board of Fisheries.

5. If the student opted to make a videotape on “*How to Submit Board Proposals*” specific to their region, they would showcase the finished video. (*If desired, submit the video to Chugachmiut Cultural Heritage Program to share on the website.)

Assessments:

- Students can explain the cultural and regulatory definitions of subsistence harvesting.
- Students researched relevant subsistence foods regulation and incorporated into proposal.
- Students presented a Subsistence Regulatory Proposal and/or testimony for a mock Board of Fisheries
- Students learned to pronounce the Sugt’stun and Eyak vocabulary and incorporated into proposal.

ⁱ Smelcer, J. E., & Young, M. A. (2007). *We are the land, we are the sea: stories of subsistence from the people of Chenega*. Anchorage, AK: Chenega Heritage, Inc. 24

ⁱⁱ Poling, D.R. (2011) *Chenega diaries: stories and voices from the past: life and times in Chenega, Alaska 1944-48*. Chenega Future, Inc., 247

ⁱⁱⁱ Smelcer 100

^{iv} <http://www.adfg.alaska.gov/index.cfm?adfg=process.commissioner> Constitutional Authority

^v <http://www.adfg.alaska.gov/index.cfm?adfg=process.main> Alaska’s Fisheries and Game Board Process

^{vi} <http://www.adfg.alaska.gov/index.cfm?adfg=process.main> Alaska’s Fisheries and Game Board Process

^{vii} <http://www.adfg.alaska.gov/index.cfm?adfg=subsistenceregulations.main> Subsistence Regulation Overview

^{viii}^{viii} Sigman, M. (Ed.). (2015). *Community-Based Monitoring of Alaska's Coastal and Ocean Environment*. Fairbanks, AK: Alaska Sea Grant. p 30 Quotation

SEA BIRD EGG HANDOUT



“Egg Hunting”

Story collected by Dolores Kawagley

There she was looking down at beautiful white eggs. “Oh, there are ten in the nest,” she said.

The number differs for each species of bird. For small birds, there are usually only four or five beautiful eggs. The colorations and shape varies with the different bird.

The Eskimos used to egg hunt every spring, before the Fish and Game enforced the white people’s law. It was part of the Eskimo way of life, getting fresh eggs.

Today in the villages, when we want eggs, we go to the store and buy a dozen for \$2.95. Not only is this expensive, but also there often are two or three broken or rotten eggs in a carton. It takes days for eggs to be delivered from outside states to Alaskan villages.

This is how egg-hunting was done: the egg hunter starts off early in the morning out into the tundra for a hard day’s journey. Somewhere there is a goose or a duck laying.

The egg hunter must watch carefully for a bird to fly out of its nest. When he sees a male bird standing he knows there is a female around. He looks around and keeps walking.

Suddenly there is a flurry of wings as a bird takes off. It is a mother bird. The man looks in the area from which the bird took off. Under the overhanging blueberry bushes he spies the nest with eggs in it.

One beautiful part is that the mother bird always takes off toward the wind to make a noise. She runs on the ground as if to distract and draw the hunter away from her nest.

Excerpt taken from Kawagley, Dolores. *Yupik Stories*. Pgs. 63-64. Amu Press, 1975

FOOD FROM THE SEA: OCTOPUS GR: 9-12 (LESSONS 6-9)

Elder Quotations:

“Paul Kompkoff, Jr: That’s the way he catches octopus. He stuck a stick under the rock, and if it moves, there’s an octopus down there.

Don Kompkoff, Sr: Another way to catch an octopus: we’d stick a stick in [a hole] and just watch it. If it starts moving, he’s in the hole.

Michael Vigil: I’ll be darned. That’s a good way.”

- Chenega Diaries ⁱ

Grade Level: 9-12

Overview: Octopus are elusive and it requires some practice to locate, capture, and prepare this food from the sea. Traditional Ecological Knowledge (TEK) provides important contributions to a successful octopus harvest.

Standards:

<i>AK Cultural:</i>	<i>AK Content:</i>	<i>CRCC:</i>
<p>C1: Perform subsistence activities in ways that are appropriate to local traditions.</p> <p>D1: Acquire in-depth cultural knowledge through active participation and meaningful interaction with Elders.</p>	<p>Science C (2). A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science and should (2) develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.</p>	<p>SS3: Students should be able to gather plants, berries, and other edible foods.</p> <p>L1: Students should understand the value and importance of the Sugt’stun language and be actively involved in its preservation.</p>

Lesson Goal: To research octopus harvest methods and uses, hunt for octopus, and prepare an octopus dish.

Lesson Objectives: Students will:

- Plan and carry out an octopus hunt field trip.
- Process and prepare octopus.
- Learn Sugt’stun and/or Eyak vocabulary listed below.

Vocabulary

Words: Sugt’stun Dialects

English:	PWS:	Lower Cook Inlet:	Eyak:
octopus	<i>amikuq</i> (pl: amikut)	<i>amikuq</i> (pl: amikut)	tsaaleeXquh (lit: ‘it stays under a rock’)
low tide	<i>ken’aq</i>	<i>ken’aq</i>	
crab	<i>yuwallayak</i> (dungeness crab)	<i>yuwallayak</i> (dungeness crab)	qiiyAdAch’an’k (dungeness crab)

Kit Library

Snively, Gloria. *Beach Explorations* (pp.201-202 Zonation Mapping)

Neq’rkat: The Wild Foods Cookbook (two octopus recipes)

Materials/Resources needed per class:

Class I

- Tidal Edibles (3) octopus cards
- Octopus – Intertidal Prey Availability & Diet Preference – Marine Symposium Poster (See below)
- Field Trip Permission slip *if needed*

Class II

- Field Trip gear: boots, rubber gloves, sticks, harvest buckets
- *Optional:* Beach crab profile activity requires:
 - approximately 30' line/rope to indicate transect line
 - Quadrants (coat hangers bent into squares) (1 per student group)
 - Crab species field guides (1 per student group)
 - Clipboards (1 per student group)
 - Beach Crab Profile handout

Class III

- Processing and cooking implements and heat and water sources to demonstrate harvest preparation

Web Resources:

Octopus Harvest and Preparation

- <https://alutiiqmuseum.org/explore/past-exhibits/954-sharing-wild-foods> Catching, Prepping, Cooking Octopus (Kodiak, 5:38)
- <https://www.youtube.com/watch?v=akAMYRPhTQ> The Hunt for the Elusive Octopus” (English Bay, 2:34)
- <https://www.youtube.com/watch?v=ttbDZPDTGK8> Catching, Prepping, Cooking, Octopus Cakes (Sand Point, 7:07); Alaska Native Tribal Health Consortium (20% Chlorox Solution used)

Tide Tables

- <http://freetidetables.com/state/Alaska/> Alaska tide tables

Teacher Preparation:

Class I

- Review activity plan and practice Sugt'stun or Eyak vocabulary.
- Decide on local beach to explore for field trip. Consult community members on best location to find octopus.
- Contact your Local Education Coordinator or local Tribal Council for a list of Elders that could share their expertise on the lesson content.
- Review the tide tables to pre-select best low tide for planning octopus harvest. Minus tides are preferred and an hour before low tide is safest. There are significant minus tides in the spring which allow students to see and harvest more.
- Invite an Elder or Recognized Expert to accompany class on field trip to identify edibles and share any stories or memories associated with the harvest, processing, or eating of octopus.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during his or her visit.
- Plan and arrange field trip date, transportation, permission slips.

Class II

- Review activity plan and practice Sugt'stun or Eyak vocabulary.
- Invite an Elder or Recognized Expert to accompany class on field trip to identify edibles and describe octopus harvest method. Encourage him or her to recall any stories or memories associated with the harvest, processing, or eating of octopus.
- Assemble collection gear.
- Camera/video recorder
- OPTIONAL: If likelihood of finding an octopus is low consider combining the octopus hunt with a beach crab profile. In addition to hunting for octopus students would lay out quadrants at regular intervals along a transect on the field trip beach to identify and count crab species and numbers, an indication of octopus prey abundance. (See [Beach Explorations Zonation Mapping](#), pp.201-202 for details.)

Class III

- Invite an Elder or Recognized Expert go discuss and demonstrate how to prepare octopus
- Assemble items needed for harvest preparation including hot plate and pan, and utensils, plates, napkins
- Load slideshow of fieldtrip photos and select video footage to share.

Opening: “Octopus/*amikut* are a relative of clams, snail, and oysters. There are more than 30 different species of octopus that weigh up to 100 pounds. The giant Pacific octopus/*amikut* is the largest and can grow to 30 feet in length. Octopus/*amikut* can be found along seaside cliffs at low tide/*ken'aq* or by overturning stones on outer flats during low tides.”ⁱⁱ Where do we find octopus/*amikut* around here?

Activities:

Class I – Octopus Habitat

1. Introduce Elder/Recognized Expert and invite him or her to describe how to harvest and prepare octopus/*amikut*. Where are octopus/*amikut* found locally? What sorts of changes, if any, have been observed in the local octopus/*amikut* population?
2. Invite students to share personal stories of octopus/*amikut* harvests or preparation.
3. Display ‘Intertidal Prey Availability and Diet Preferences of Giant Pacific Octopus’ poster (See website listed above) and review prey preferences of octopus/*amikut* and detection methods used in survey.
4. Watch YouTube videos of octopus/*amikut* capture (listed above). Note: *Some videos and other sources describe the use of Chlorox (Full strength or diluted) to force an octopus out of its hole. This is contrary to ADF&G regulations and is not environmentally friendly.*
5. Port Graham Chief Pat Norman and Port Graham octopus hunter Tim Malchoff described their octopus harvest techniques at an Elders Conference in Homer, Alaska in March 2018: *Choose a minus tide for hunting octopus and look for crab shell piles and rocks with small amounts of sand pushed up next to a front and rear entrance point. Dens will always have two entrances. Insert a gaff or a stick with a small hook at the end to feel for the octopus. Don't pull the animal out if only the tentacle is engaged. The octopus will often shed a tentacle to resist capture. For the same reason don't hook the octopus if only a tentacle appears. Wait until the head emerges. Press the gaff against the head before pulling the animal out from under the rock.*

6. Distribute the *Imaggqat Negek – Foods from the Sea’ Octopus* information cards for students to peruse.
7. Use the tide website listed about or a local tide book to identify a low tide/*ken’aq* and organize an octopus field trip. When would be the best low tide/*ken’aq*? What gear is needed?
8. If needed, distribute Field Trip Permission forms.
9. Homework: Have students interview a family member or Elder knowledgeable about local octopus/*amikut* harvests.

Class II – Field Trip

1. Go on field trip.
2. Have students repeat octopus/*amikut* name in both English and Sugt’sun or Eyak.
3. Ask Elder to help identify octopus/*amikut* dens through location of crab shell piles and suitable rock piles. Encourage him or her to recall any stories or memories associated with the harvest, processing, or eating of octopus/*amikut*.



Octopus Hunting at Night, Port Graham

4. *Optional:* Consider combining octopus hunt with assessment of crab types and populations of beach through a transect analysis. [See [Beach Explorations Zonation Mapping](#) p.200-201 for details. Use 'Beach Crab Profile' handout for students to record observations.]
5. Distribute collection buckets and gaffs or sticks tools for students to harvest an octopus/*amikut*.
6. Take photos of identification and harvest for use in final lesson. Encourage students to discuss relative abundance or scarcity of resource for the video recorder.
7. Return to class with octopus/*amikut*.
8. *Optional:* Discuss results of Beach Crab Profile and its possible effect on the octopus/*amikut* population.

Class III – Processing and Preparing Octopus

1. Invite Elder/Expert to demonstrate how to prepare and cook octopus/*amikut* OR choose recipe for students to prepare.
2. *Optional:* View the Alutiiq Museum video listed above on the catching and prepping of octopus/*amikut*.
3. Share and enjoy!
4. Show photographs and videos of field trip.

Octopus Recipe

1 octopus and Rock Salt

Remove the skin by rubbing the octopus with salt. Rinse and rub it again until the skin tears off. Wash the octopus thoroughly. Place the octopus into a pot and boil it. Be sure not to overcook it. The entire octopus is edible, even the suction cups.ⁱⁱⁱ



Octopus Patties

- 4 octopus tentacles
- 2 eggs
- 12 soda crackers
- 1 onion
- 2 tablespoons pancake mix
- 1 cup flour
- Crisco
- Salt and pepper to taste

Finely chop the octopus tentacles and onion. Crumble the soda crackers. In a large bowl, mix the octopus, onion, crackers, Eggs, and pancake mix. Form patties from the mixture. Roll the patties in the flour. Add several tablespoons of Crisco to a large fry pan. Fry the patties until golden brown. Season with salt and pepper.^{iv}

Assessment:

- Students planned and carried out a field trip to harvest octopus.
- Students processed and prepared an octopus dish.
- Students correctly pronounced the Sugt'stun or Eyak vocabulary

ⁱ Poling, Donald Robert. *Chenega Diaries: Stories and Voices of Our Past: Life and Times in the Native village of Chenega, Alaska 1944-1948*. Chenega Future, Incorporated, 2011. p.241

ⁱⁱ DeCourtney, Christine. A., et al. *Traditional Food Guide for the Alaska Native People*. Alaska Native Tribal Health Consortium, 2015. p.72

ⁱⁱⁱ Smelcer, J. E., & Young, M. A. (2007). *We are the land, we are the sea: stories of subsistence from the people of Chenega*. Anchorage, AK: Chenega Heritage, Inc. 158

^{iv} Smelcer 158

FOOD FROM THE SEA: CONSERVATION LORE GR: 9-12 (LESSONS 10-12)

Elder Quotation:

“I still hunt seal and sea lions. There’s a trick to it. I drop off someone with a rifle on the rocks where there are seals. Then I drive the boat away from the area. The seals think we have left, and they come back up to the surface where the person on the rocks shoots them. Sometimes, I’m the one to stay o(n) the rocks. You have to retrieve them before they sink. We get sea lions the same way.....If we shoot something and kill it, then we do everything we can to bring it home. There have been times when it seemed like we were out three for hours trying to get something off the bottom. We just don’t like to waste anything. That’s not our way.”

- Michael Vigilⁱ

Grade Level: 9-12

Overview: Traditional Sugpiat and Eyak lore is much more than old stories or superstitions. They help preserve and transmit important cultural values including how to treat and conserve subsistence resources with respect.

Standards:

<i>AK Cultural:</i>	<i>AK Content:</i>	<i>CRCC:</i>
<p>C1: Perform subsistence activities in ways that are appropriate to local traditions.</p> <p>D1: Acquire in-depth cultural knowledge through active participation and meaningful interaction with Elders.</p>	<p>Science C (2). A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science and should (2) develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.</p>	<p>SS3: Students should be able to gather plants, berries, and other edible foods.</p> <p>L1: Students should understand the value and importance of the Sugt’stun language and be actively involved in its preservation.</p>

Lesson Goal: To understand how traditional Sugpiaq and Eyak lore passed down through generations instilled cultural values that helped preserve subsistence resources for generations to come.

Lesson Objectives: Students will:

- Reflect on the values represented in traditional Sugpiat and Eyak lore as they relate to food from the sea.
- Generate specific examples of how to live these traditional conservation values.
- Learn to pronounce the Sugt’stun and Eyak vocabulary

Vocabulary Words:

Sugt’stun Dialects

English:	PWS:	Lower Cook Inlet:	Eyak:
spirit	<i>suk</i>	<i>suk</i>	
We respect our sea creatures.		<i>Picakllapet imarlet.</i>	
We respect the food from the sea and the land.		<i>Picakllapet nunamek taumi imarmek.</i>	

Kit Library:

Book: Johnson, J. F., & Page, B. (1984). *Chugach Legends*

Book: Krauss, M. (Ed.) (1982) *In Honor of Eyak: The Art of Anna Nelson Harry*

Book: Poling, D.R. (2011) *Chenega Diaries*.

Book: Salomon, A. K. et al. (2011). *Imam Cimiucia = Our Changing Sea*.

Book: Smelcer, J. E., & Young, M. A. (2007). *We Are the Land, We Are the Sea: Stories of Subsistence From the People of Chenega*.

Book: Tabios, D. (2000). *Looking Back on Subsistence: Interviews with Elders of the Chugach Region*.

Materials/Resources Needed:

Class I

- Old Beliefs Handout
- Various legends –
 - ‘Pukituq Who Turned into All Kinds of Animals’ (*Chugach Legends*, pp.52-53)
 - Make no noise when hunting
 - ‘The Fire Dwarfs’ (*Chugach Legends*, p.56)
 - Pre-hunt taboos - Fast and abstain from sex before hunting
 - ‘The Man and the Sea Lions’ (*Chugach Legends*, pp.67-69)
 - Treat sea lions respectfully
 - ‘The Man Who Turned into a Squirrel’ (*Chugach Legends*, pp.69-71)
 - Humans can become animals and vice versa
 - ‘The Eagle-Man’ (*Chugach legends*, pp.78-79)
 - Designating food for sharing
 - ‘The Man Who Met “Imam- Shua”’ (*Chugach Legends*, pp.109-110)
 - Spirit of the ocean lists hunting rules
 - ‘1933: Turned into a Groundhog’ (*In Honor of Eyak*, p.122)
 - Pre-hunt taboos and preparation

Teacher Preparation:

- Review activity plan and practice Sugt’stun or Eyak vocabulary.
- Determine how many class sessions to allow students to work on project and when to share project results.

Opening: Sugpiaq Elder Diane Selanoff of Valdez has reminded us that the traditional resource usage mindset was that one should be grateful for what nature offers and not deplete subsistence resources. As a child she was taught that if you took something from the beach you were going to make it rain. Is this an example of Native folklore or superstition? Diane Selanoff was further taught that if you take something from the land you have to give something (physical) back.ⁱⁱ Is this folklore or conservation lore?

Traditional beliefs and ‘superstitions’ include a lot of lessons about the consideration for their implications on environmental impact now find there is much merit in these old stories and sayings as to the respectful treatment of resources, i.e., how to preserve their environment, attitudes that maintain a right relationship with the environment.

Activities:

Class I:

1. Introduce Elder/Recognized Expert and invite him or her to recall learning about the importance of respecting the environment and the creatures in it. Were they taught by example? By stories? By conversations?
2. Distribute ‘Old Beliefs’ handouts and discuss which contain messages of conservation. (out right preservation of populations, stories to scare kids into right actions, legends of respectful hunting.) Note: *Not every belief or story is directly on point.*
3. Divide class into small groups and distribute or assign a legend or story to each group. Students should read and reflect on what each story tells about the subsistence lifestyle and evaluate if the story or legend explains or teaches how to preserve resource populations or the environment.
4. In traditional Sugpiaq belief ‘every animate and inanimate thing, including animals, plants, tides, winds, stars, and, ice, possesses *suk* or human-like possessor that gives it personhood and awareness.’ⁱⁱⁱ “Sally Ash of Nanwalek was told by her mother that “*Cacat nangluteng sungqehut*” – “All things have a *suk*,” describing a universe that is completely alive and in which every part of nature is conscious of human thought and action.”^{iv}
There were three great *suk* spirits: *Lam Sua* – a person of the universe; *Nunam Sua* – female person who lived in the forest in charge of all land animals, and: *Imam Sua* – female person who lived at the bottom of the sea in charge of all sea animals and to whom hunters prayed when hunting by kayak.^v
5. Wastefulness disrespects nature and its life cycles. “In Prince William Sound fish intestines were customarily returned to the water because they were part of the animal’s soul. The first fish was eaten entirely except for the gall and the gills. If anything was wasted, it was believed the fish would not return.”^{vi} See also the Elder quotation from Michael Vigil of Chenega above.
6. Discuss how a tribal council, local government, or public relations firm might pass along these traditional messages of conservation and respectful treatment of food from the sea in a modern presentation. How would students as ‘future Elders’ pass along these values?
7. Write ‘*Picakllapet imarlet/ We respect our sea creatures*’ and ‘*Picakllapet nunamek taumi imarmek/ We respect the food from the land and sea.*’ What medium would students use to transmit these values to others: Brochures? Video? Rap Song? Skit? Public Service Announcement? Social Media message? Poster?
8. Invite or assign each group to choose a medium to convey conservation values based on traditional lore. Have students identify an audience for their project (elementary school students, fellow teens, general public, tourists...).
9. *Optional:* Homework: Have students interview a family member or Elder about how and where they learned traditional values about conservation and local resources.

Class II:

1. Have students work in their small groups to promote the traditional Sugpiat or Eyak values of respect and conservation by means of their chosen medium for their designated audience. They may refer to the handouts or any of the Kit Library books listed above.
2. Projects must focus on food from the sea and incorporate at least three specific references to traditional lore or beliefs and three specific ways in which that would translate into action.

For example: As Bobby Stamp's Chenega Elders told us, Don't spit in the sea – Don't throw trash into the sea.)

3. Projects will be assessed for their creativity, specific use of traditional lore references and three related actions to take, and their appropriateness for the target audience.

Class III:

Have students present their projects and assess the content and effectiveness of their messages.

Assessment:

1. Students successfully analyzed the sea-related conservation values underlying traditional lore.
2. Students created specific conservation messages based on traditional lore in a contemporary medium.
3. Students correctly pronounced the Sugt'stun or Eyak vocabulary

ⁱ Michael Vigil as quoted in Smelcer, J. E., & Young, M. A. (2007). *We are the land, we are the sea: stories of subsistence from the people of Chenega*. Anchorage, AK: Chenega Heritage, Inc. pp.128-129.

ⁱⁱ Diane Selanoff, Chugachmiut Elders Conference 9.13.17, Anchorage, AK

‘SEA-RELATED OLD BELIEFS’

Excerpted from *Chenega as I Saw It – It’s People* by Bobby Stamp (2010)

“The Aleuts did not hunt or cook sea mammal and land mammals together. You would be offending the “gods (*spirits*) of the land (and sea)” which are called **Nuu num so ko nuugah, Nu num sook no ah, New num soo ow na** or **Nunam suk nuagah**. Salt and bread were considered sacred, not to be misused or thrown away.” (p.13)

“There was a belief that the sea and all the plants and animals had god (*spirits*), wind, sun, and every different thing had a god (*spirit*).” (p.13)

“Then we were real young as kids there were things that they did not want us to do, such as catching little fish or fooling around with little bird nests. We were told that we would cause it to rain and we would not do those things. Little birds or chicks from ducks or any kind of bird were to be left alone, they were pets of the god & we were not supposed to offend the gods.” (p.14)

“Salmon was sacred. You were not supposed to even lay it on bare ground. You cut clean grass so the fish would not get dirt on it. If you mistreated the salmon, the god of the salmon would make it scarce the next year, they would not come back.” (p.14)

“You see a lot of quartz rock about the size of a nickel. All of the bidarkies carried them; it was to attract the attention of the killer whale “**Ah look**” when they came too close. They threw the rock overboard and they said they would look like little fish to the killer whales. When greeting a killer whale you would say “**Ooo hay**”. (p.15)

“If they caught a seal with a pup inside unborn, they would take the film that was over the young seal and put it on the figure head of the bow and it was supposed to bring good luck.” (p.15)

“You were not to eat any fish or animal you found dead or did not kill. They said a big evil man, in our language [was] called **Sool auk**, would get you.” (p.15)

“If we ate raw fish or salmon we were not supposed to eat berries that day.” (p.15)

“You did not eat fish tips that were dried for the animal you were trapping or the animal would get the bait from the trap or spring it without getting caught.” (p.16)

“One way of keeping us from harming any fish, the people told us that if we harm them it would rain. You did not dare do this because the other kids would beat you up because you would cause it to rain so we would watch or tattle on each other. That went for all the little birds, they were all of god’s pets and we were to leave them be, injured and all.” (p.16)

“There is a belief that the sea is sacred, you were not to spit or throw debris in there. There was a holiday for the sea. There was a sea god and he controlled the animal in it.” (p.16)

‘SEA-RELATED OLD BELIEFS’
Excerpted from *Chugach Legends* (1984)

“They used to believe in animals. Well, they believed that what animals do will happen to them. Some of them were like fortune tellers. They believed the animals because every time an animal acts, like fighting to win, that means something bad will happen to him or her. They believed that he was expecting trouble afterwards. They would say, “Oh, that’s going to be bad on me because the animal told me.” They didn’t know about God. Superstition was what they believed in.” (p.57)

“When killer whales come to a bay with a village, the villagers are sad. They think that the killer whale is after someone’s spirit. They believe that after the killer whales leave, someone is going to die. It won’t be long. Sure enough it happens, because they believe in superstition. Maybe one or two months later, someone dies in that bay.” (p.57)

ELDER KNOWLEDGE

Excerpted from *Imam Cimiucia Our Changing Sea* by Salomon, Tanape, Williams, & Huntington (2011)

“Our Elders told us not to pick in the spring and summer. We never bothered with them in the summertime: clams, bidarkis. Early October we’d go after them, leaving them alone all summer. Our Elders used to tell us, “You’ll get sick if you eat them during the springtime.” I think that was their way to scare us out of eating them during the time that they were hatching.” – John Moonin, Elder, Port Graham (p.81)

“March was the month our Elders stopped us from hunting. The animals had little ones inside. If you want to see them in the suture, leave them alone. New generation, it’s not that way, they go out and get whatever they want whenever they want.” – Simeon Kvasnikoff, Elder, Port Graham (p.81)

“When I was growing up, if you were a resource user you had to be a resource mgr, too. You pick up only what you need and leave the small ones alone. You don’t pick a beach clean. You stayed away when things were scarce. That is what we were taught.” - Walter Meganack Jr., Port Graham (p.82)

ⁱⁱⁱ Crowell, A., Steffian, A., & Pullar, G. (Eds.). (2001) *Looking both ways: heritage and identity of the Alutiiq people*. Fairbanks, AK: University of Alaska Press. 142.

^{iv} Crowell, A. (2001). 192

^v Crowell, A. (2001). 192

^{vi} Crowell, A (2001). 176.