



# ONCORHYNCHUS

Newsletter of the Alaska Chapter, American Fisheries Society

Vol. XXXIX

Spring 2019

No. 2

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*Stakeholder participation at an Alaska Board of Fisheries meeting. Photo by Stephanie Quinn-Davidson.*

## The Big Dig(itization):

### What's Really Happening in Alaska's Board of Fisheries Process?

*Meagan Boltwood Krupa and Molly McCarthy Cunfer*

Alaska's Board of Fisheries process is often proclaimed as a success because of its open access and relatively long history, but the evidence is lacking and "success" has not been defined. Without analyses based on clear goals and objectives, it's difficult to substantiate claims of success - or failure. With the goal of improving the efficiency, effectiveness, and equity of the Board process for both Board members and participants, we designed a transparent, quantitative, and objective method that tracks Board actions and public participation over time. The analysis includes Board member composition and voting records, regulatory history, and participant success rates. We begin with a brief history of the process and then explain how we turned thousands of proposals into a dataset with the capacity to audit the system. Finally, we present some initial results that indicate the Board process may be in need of some improvements.

In 1959, Alaska's first state legislature created the Alaska Department of Fish and Game (ADF&G) to research and manage fish and wildlife resources, the Board of Fish and Game to make allocative

decisions regarding fish and wildlife resources, and Advisory Committees (ACs) to help inform the board about local issues. In the spring of 1975, the board was split to form the Board of Fisheries (Board) and Board of Game.

Management decisions regarding conservation are made by ADF&G while the Board's primary job is to communicate with local stakeholders and resolve allocation disputes. The Board can also help ADF&G enact conservation measures. Giving the Board and ADF&G separate management measures is celebrated because the issue of allocation is brought into the public arena and away from managers. The seven Board members, representing a broad array of fishing groups and other interests, are appointed by the Governor and confirmed by the legislature.

The ACs have no regulatory authority but do provide valuable local expertise to the Board. Each AC is comprised of 9-15 members and holds approximately one to six meetings a year. The AC meetings are monetarily supported by the State through the attendance of ADF&G area biologists

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## The President's Corner



Joel Markis, AFS Alaska Chapter President.

Greetings Alaska fisheries folks. It is my pleasure to address you in my first President's Corner and I thought I would start with a bit of an introduction for those of you that I have not had the pleasure to meet personally. My name is Joel Markis and I am a Fisheries Professor at the University of Alaska Southeast and based in beautiful Sitka, Alaska. My role at the University is primarily focused on teaching Fisheries students enrolled in one- and two-year fisheries degrees with the Fisheries Technology Program. Our program focuses on fisheries workforce development and career training for entry level jobs in Salmon Enhancement and Fisheries Management. My position has allowed me to teach and interact with students all over Alaska while engaging industry and numerous fisheries organizations to ensure the highest caliber of fisheries graduates.

I grew up on the east side of Anchorage and spent my weekends and summers in the mountains and on the water. I received my B.S. in Fish and Wildlife Management from Montana State University and an M.S. in Marine Biology from the University of Alaska Fairbanks. I began my fisheries career conducting fisheries inventories for the National Park Service and was fortunate enough to see and work in the majority of Alaskan parks. I then began working for the Alaska Department of Fish and Game in Southcentral Alaska where I worked on a wide variety of projects ranging from sport finfish management to oceanographic monitoring and subtidal habitat assessments. At this stage of my

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## The Big Dig(itization), continued

and travel coordination and funding. In total, over 700 members volunteer their expertise in the AC system.

Decades after the historical failure to include the major stakeholders in meaningful decision-making was identified as one of the causes of world fisheries collapses ([Cochrane 1999](#)), agencies began to adapt their management processes to increase stakeholder involvement (e.g., [Pomeroy et al. 2016](#)). While the rest of the world struggled to develop frameworks for public engagement, Alaska was already a half century into the process.

Stakeholder engagement now exists all over the world. People want to participate in managing their resources, and managers have learned there are benefits to listening to the public. Stakeholder engagement has led to more inclusive decision making, promoted equity, enhanced local decision-making, and built social capital ([Mathur et al. 2008](#)). Since people directly interact with the resources and drive many of the landscape and species changes, it makes sense to pay close attention to what has been said over time.

In Alaska, the Board's open public process is still celebrated as one of the key factors in Alaska's fishery management success. Any member of the public can participate by attending the Board meetings, publicly testifying, and submitting written comments or even proposals. The ADF&G website refers to the Board's public process as "among the most open regulatory processes in Alaska if not the nation" ([ADF&G 2019](#)).

But does the mere existence of an open process equate success? Who defines success? Who is, and who isn't, successfully participating in Alaska's Board process? The State Legislature was specific in its design of the composition and roles of the Board, but the description of the public process didn't go far beyond its existence. Today, the ADF&G website notes, "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" ([ADF&G 2019](#)). But there is no explanation of why the process was created

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## President's Corner, continued

career I transitioned from a manager and fisheries researcher to a full time educator, teaching for a number of institutions and ending up in Sitka five years ago where I fish hard and scuba dive often.

We recently wrapped up our 45th annual AFS Alaska Chapter meeting. The meeting was a huge success despite the challenges of a federal furlough on top of a state budget proposal that restricted participation from numerous departments. The meeting was held at the recently remodeled Harrigan Centennial Hall in Sitka. The theme for this year's meeting was "Headwaters to Oceans, Connecting Alaska's Fisheries" and I believe we truly embraced the theme, highlighting projects and research from across Alaska with six great symposia, three wonderful plenaries, 65 contributed talks, and 32 posters. The more interactive portions of this year's meeting ranged from a lovely welcome social at the Sitka Sound Science Center, a Student-Mentor Luncheon, Fish Trivia, a public engagement session, and a truly spectacular whale watching tour in Sitka Sound. If you missed the meeting the full program is available online at <https://units.fisheries.org/ak-mtg/program>.

A couple of new elements that we implemented at this year's meeting included additional efforts to enhance cultural diversity and inclusion, a community engagement session where we brought the public into our meeting, and a concluding banquet on the final day of the meeting. We especially feel the strides we have made to accommodate a diverse membership by providing nursing stations for parents with young children, a specific code of conduct outlined in our program, gender inclusive restrooms, and pronoun stickers are helping our Chapter progress as our science continues to do.

The meeting would not have been possible without the dedicated help of numerous volunteers and helpers. Specifically I want to thank, in print, the following individuals: Justin Priest (Co-Chair); Rhea Ehresmann, Cheryl Barnes, Angela Bowers, Ellen Chenoweth, Madison Kosma, and Lauren Wild (Arrangements); Ellie Handler and Peter Westley (Program); Lee Ann Gardner (Finance); Tyler Dann (Registration); UAF Student Subunit (Fundraising); Stephanie Quinn-Davidson (Silent Auction); Jeff Falke

(Awards); and Kyle Shedd (Spawning Run). Along with the help of all these dedicated individuals, the meeting would not have been possible without the generous financial support of numerous donors. Please see the full list of donors in the meeting program.

I would like to highlight a few of the objectives that the Alaska Chapter will be focusing on over the next year. One of the most productive things about our annual meeting was the enthusiasm created toward the numerous environmental issues facing our fisheries and habitat. We will be focusing more efforts on using our voice as a Chapter to comment and provide input on a variety of these issues and concerns. Of note, I have just signed a letter providing the Chapter's position on the administration's changes to the Waters of the US (WOTUS) designation. We are also in the process of drafting comments on the draft EIS for the proposed Pebble Project. We will continue to work with our Environmental Concerns Committee, the Western Division, and society personnel to use our collective voice as fishery professionals to promote sound fisheries science and sustainable fisheries management.

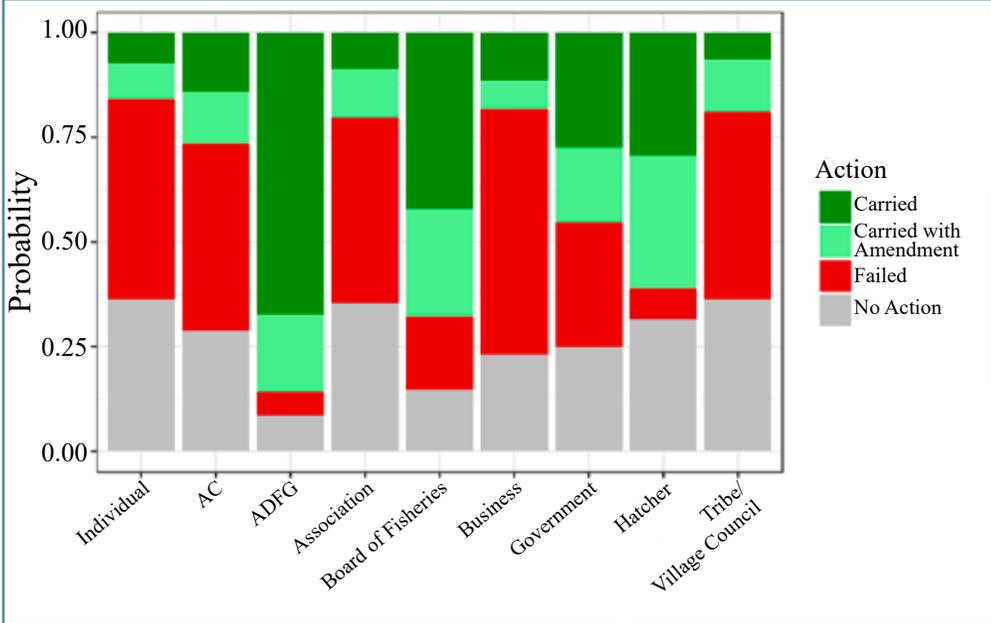
Many of you also noticed a new more effective and efficient annual meeting website. We have transitioned to a Parent Society hosted meeting website and over the next month or so we will be transitioning our Chapter website to a similarly up-to date website hosted by the Parent Society, all while gaining better access to posting and editing content. We will also be examining how we correspond with our membership to try and find efficiencies and more interaction when engaging our membership. In closing I would like to thank Aaron Martin, our outgoing past president who, although wasn't at this year's annual meeting, has been a strong and vibrant leader for our Chapter. His efforts will be missed on the Executive Committee. With his absence though we welcome Sue Mauger, the Science Director for Cook Inletkeeper, as our new Vice-President. Sue brings a wealth of fisheries knowledge and advocacy work to our Chapter and we are very fortunate to have her. Fish hard, dive in, and keep doing the hard work you do to maintain our Chapter and our profession. 🐟

**The Big Dig(itization),** continued

or what it was designed to do.

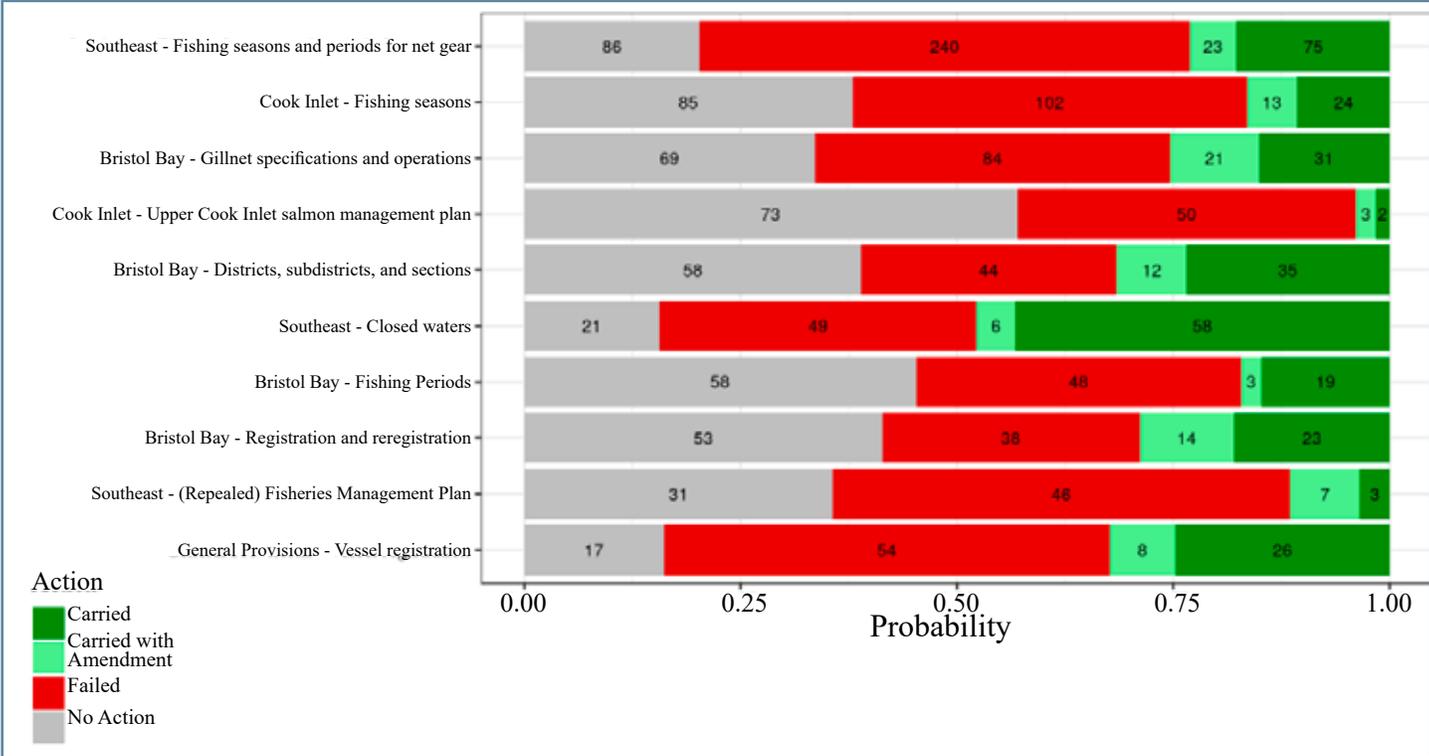
Without guiding goals and clearly stated objectives from the outset, it's difficult to claim success in public processes (Reed 2008). Several studies (e.g., Young et al. 2013) have attempted to determine the effectiveness of stakeholder engagement using qualitative methods, such as semi-structured interviews; but these studies focus on capturing participant experiences and fail to quantify if/how the processes are functioning. The reason that these public processes haven't been examined may have something to do with the difficulty in processing data from archived public documents.

In order to learn what has been occurring in Alaska's Board process, we downloaded, digitized, and coded over 20,000 Board proposals from 1960 to 2017. Our goal was to develop a transparent, replicable, and accurate coding system that would



Statewide probability of Alaska Board of Fisheries proposal success based on proponent group, 1960-2017. Figure from Jeanette Clark, NCEAS.

provide an assessment and decision-making tool for the Board process. The project began on an unusually rainy and windy day in February 2017 when we pulled the first boxes out of the State Library Archives and Museum in Juneau. We ultimately spent a total of 181.5 hours scanning 100,000 pages. *Continued on next page*



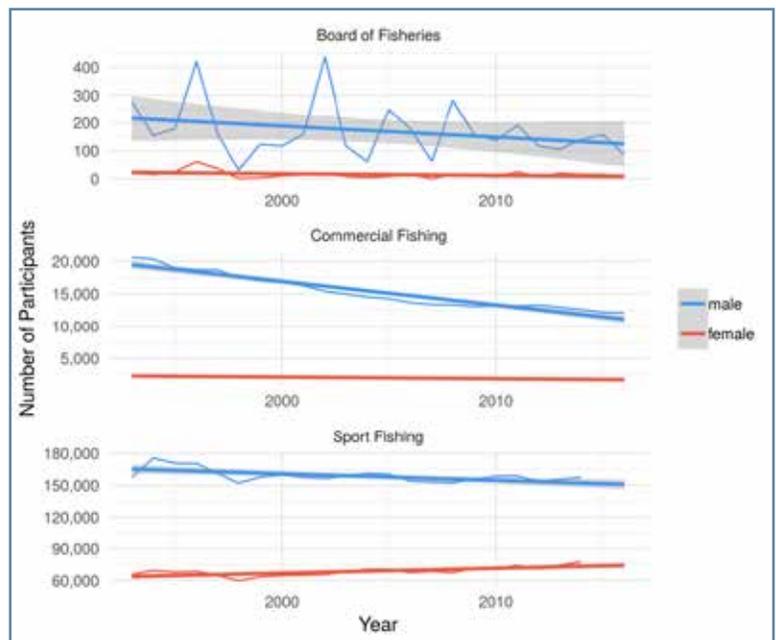
Statewide probability of Alaska Board of Fisheries proposal success by region, 1960-2017. Figure from Jeanette Clark NCEAS.

## The Big Dig(itization), continued

While there are many forms of public communication to the Board, we limited our coding process to fisheries proposal books, vote logs, and meeting minutes. We chose these documents because they maintained a consistent format over time and contained large amounts of useful data. After assessing the information in the documents, we eliminated data categories that produced low accuracy rates or were too time intensive. After an extensive quality control process, we determined that we could produce 19 data points, including meeting, species, fishing sector, regulation, title, author, and Board votes. Prior to completing the statewide coding effort, we did a three-region pilot study of Cook Inlet, Bristol Bay, and Southeast from 2000 to 2015 to test the method and coding manual, and verify the accuracy of the results (Krupa et al. 2018).

We then used our coding manual to translate statewide Board documents from 1959 to 2017 into an open access dataset housed in the Knowledge Network for Biocomplexity (DataOne) (<https://knb.ecoinformatics.org/view/doi:10.5063/F16D5R7K>) and built an R Shiny App ([https://sasap-data.shinyapps.io/board\\_of\\_fisheries](https://sasap-data.shinyapps.io/board_of_fisheries)) for data access and filtering. The dataset includes a tabular data representation of all Board of Fisheries proposals from 1960 to 2017 (BOF\_Proposals.csv). The coding manual (BOF\_Proposal\_Coding.pdf) outlines how to code the documents into a regular tabular structure. We also produced a dataset documenting the locations of all Board meetings over time (<https://knb.ecoinformatics.org/view/doi:10.5063/F1057D6G>).

These tools provide members of the public, ADF&G, Board members, and Board staff with an accurate, searchable history of the process to support their decision making. For example, Board members can search for a specific regulation and find PDFs adapted for optical character recognition (OCR) of all previously submitted proposals and a spreadsheet listing each of the 19 descriptive categories, including the Board's action on each proposal. The tools also provide the first assessment of how the Board process is actually working. The dataset allows Board members to see regional proposal results and identify the most commonly cited regulations. Historical vote records show how



Male and female participation in fishing and the Alaska Board of Fisheries process, 1960–2017. Figure from Jeanette Clark, NCEAS.

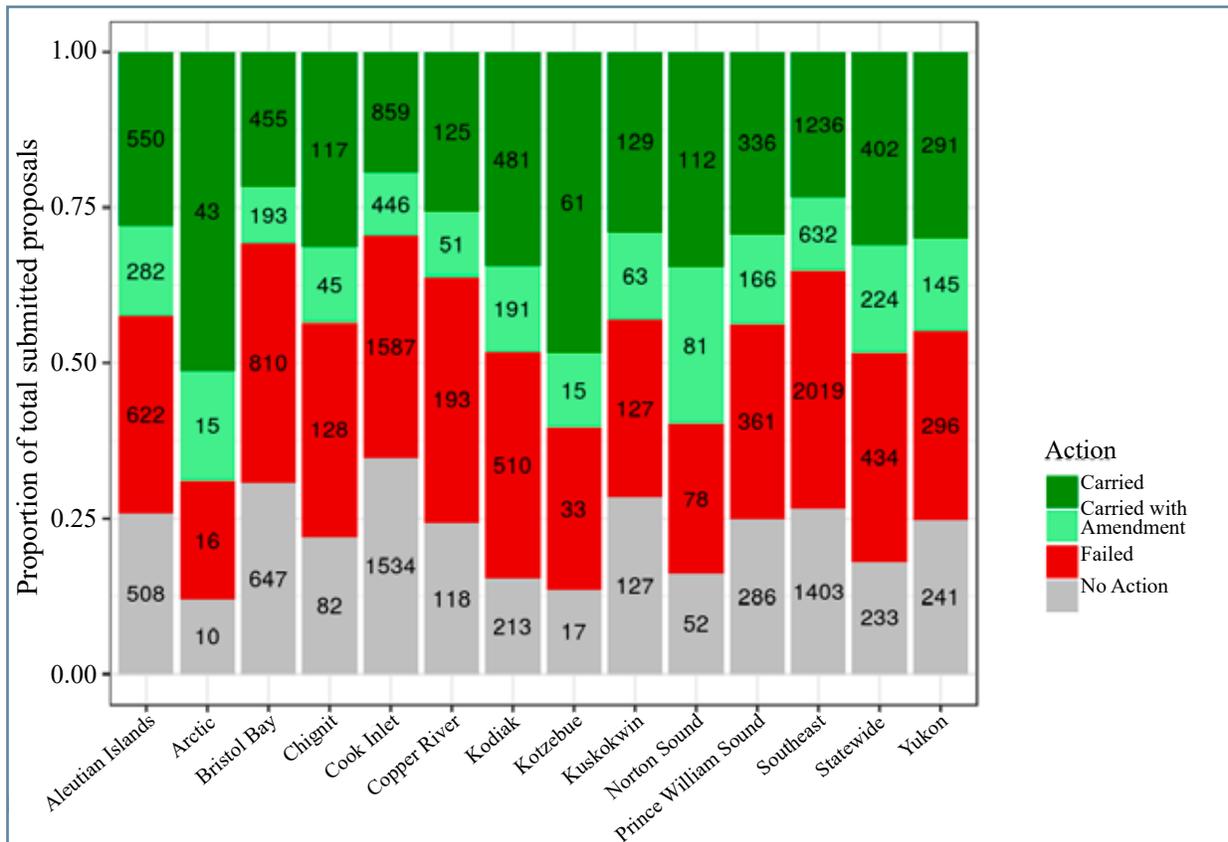
an individual Board members voted throughout their tenure based on sector, species, region, or any other recorded data. An individual, tribe, or AC (or any group) can now calculate their historical proposal success rate by region, decade, regulation, etc. These are just a few of the potential analyses. The combination of the 19 categories from any timeline during 1960–2017 produces a lot of decision-making support and assessment opportunity. Some initial findings from the dataset, based on proposal success compared to the number of proposals submitted over the time period, include:

- Groups with the highest probability of passing a proposal are ADF&G, the Board of Fisheries, other State of Alaska agencies, and hatcheries. The only non-State of Alaska group with a high probability of success is hatcheries.
- Groups with the lowest probability of passing a proposal are Tribes/Village Councils, Individuals, Associations, and Businesses.
- Regions with the highest probability of passing a proposal are Arctic and Kotzebue.
- Regions with the lowest probability of passing a proposal are Cook Inlet, Bristol Bay, and Southeast.

• Women's participation is increasing in sport fishing and stable in commercial fishing, but women's proposal submissions have declined over time (Krupa et al., in press).

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The Big Dig(itization), continued



Statewide probability and occurrence of regulation changes over time by regulation type, 1960–2017. Figure from Jeanette Clark, NCEAS.

- Men’s participation in sport and commercial fishing and the Board’s proposal process have declined over time (Krupa et al., in press).

- The top five regulations eliciting the most proposals are: 5 AAC 33.310 (fishing seasons and periods for net gear in Southeast), 5 AAC 21.310 (fishing seasons in Cook Inlet), 5 AAC 06.331 (gillnet specifications and operations in Bristol Bay), 5 AAC 21.363 (Upper Cook Inlet Salmon Management Plan), and 5 AAC 06.200 (fishing districts, subdistricts, and sections in Bristol Bay). Of the top ten regulations that elicit the most proposals, four are from Bristol Bay, three from Southeast, two from Cook Inlet, and one is a statewide General Provision.

- An individual is more likely to survive a return trip to Mars than submit a successful Upper Cook Inlet Management Plan proposal (~4% success rate).

Based on our initial findings, it may be time for Alaska to continue its pioneering role by revising some of its approaches to stakeholder engagement and incorporating metrics to measure its stakeholder engagement success. The incorporation of general goals such as equity, efficiency, and effectiveness

with locally-generated specific objectives may help in creating a genuine metric for success that can be monitored over time.

It’s unlikely that Alaska is alone in its need to adapt its stakeholder engagement approach. As we begin to look closer at stakeholder engagement across the world, managers and regulatory bodies may find the need to define metrics of success and modernize their processes. Our study shows that using existing, but often ignored, public documents could improve Board and stakeholder participation in the management of Alaska’s natural resources. While our research focused on Alaskan fisheries, this adaptable digitization and coding process could be used anywhere that stakeholder communications exist.

*Meagan Krupa and Molly Cunfer completed this work through the National Center for Ecological Analysis and Synthesis (NCEAS) at the University of California, Santa Barbara and Nautilus Impact Investing with support from the Gordon and Betty Moore Foundation as part of the State of Alaska’s Salmon and People (SASAP) and Data Task Force Projects.*

## Climate Change and the Carbon Dividend Act

Linda Behnkin

Climate change and ocean acidification pose significant threats to both fresh and saltwater fishes. Phenomena such as the 2015–2016 Gulf of Alaska “warm blob” are identified as drivers in the 80% drop in Central Gulf Pacific Cod abundance and historic low Chinook and Pink salmon returns in Southeast Alaska. Stopping, or even slowing, the rate of climate change is the most significant action managers can take to protect long-term planetary productivity.

Human activity, primarily the burning of fossil fuels and the resultant emission of greenhouse gases, is the most significant driver of climate change. Economists agree that the failure to account for the external costs of burning fossil fuels is the greatest market failure in history.

As highlighted in the 2018 Intergovernmental Panel on Climate Change report (*Global Warming of 1.5°C*) time is running out. Pricing the carbon in fossil fuels is largely regarded as the best first step in the eventual solution to this problem. The U.S. is in a position to lead these efforts and Congressional leaders have proposed legislation that, if enacted, will provide that leadership.

The Energy Innovation and Carbon Dividend Act, the first bipartisan climate legislation in a decade, was reintroduced as H.R.763. The act is based on a carbon fee and dividend framework to account for the hidden costs of burning fossil fuels. If enacted into law, this policy will drive down greenhouse gas (GHG) emissions by stimulating American innovation and ingenuity. Here’s how it works:

- A “carbon fee” is placed on the source (mine, well, etc.) of coal, oil, or natural gas entering the U.S. economy.
- The fee starts at \$15 per metric ton of CO<sub>2</sub> and increases by \$10/mt, adjusted for inflation, every year until GHG emissions are reduced by 90%.
- Money from this fee is distributed to American residents as monthly carbon dividends, helping consumers adapt while businesses compete to reduce their carbon footprints.
- If emission reductions do not meet mandatory targets, the annual increase can be raised to \$15.
- A carbon border fee adjustment is placed on emissions-intensive goods that are imported

or exported. This discourages businesses from relocating to avoid a U.S. carbon tax, and also encourages other nations to price carbon.

- This policy would supersede a narrow subset of GHG regulations for 10 years, but if GHG emissions have not been reduced 30 percent by then, the EPA would be obligated to issue new rules to reach the 30 percent reduction target. This legislation would not alter existing Clean Air Act regulations.

Because a steady increase in fossil energy prices is predictable, this legislation will stimulate invention and investment to cut carbon in myriad ways, ultimately with more predicted growth to the Gross National Product (and jobs) than would occur without carbon pricing. Consumers will know they can count on increasing dividends to help them through the transition to a world of clean, energy-efficient goods and services.

In summary, this Congressional Act would:

- Follow emission reductions recommended in the Intergovernmental Panel on Climate Change 2018 report.
- Provide dividends to those most vulnerable, along with many other broader economic and health benefits
- Grows jobs and GDP while avoiding costs associated with unchecked warming.
- Provide essential protection for marine and freshwater ecosystems

If you are interested in this legislation, go to: <https://energyinnovationact.org>.

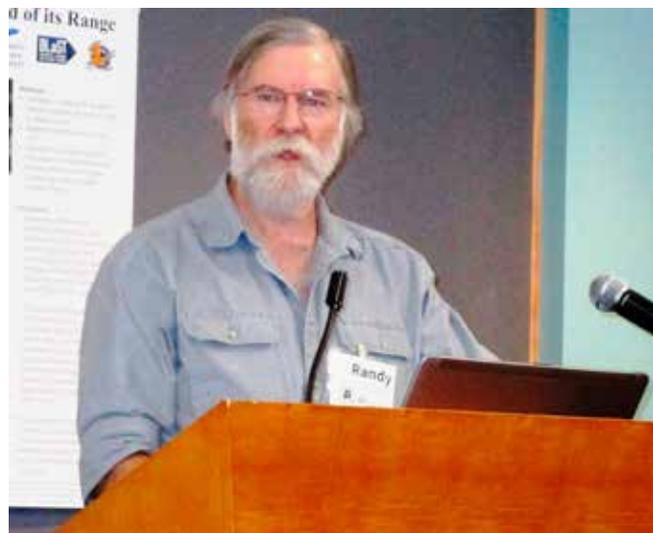
### Electrofishing Course

The Alaska Chapter American Fisheries Society will host “Methods and Measurements in Electrofishing,” a continuing education course instructed by Dr. Jim Reynolds. The course will be held at the William Jack Hernandez Sport Fish Hatchery in Anchorage, May 29–31, 2019. Topics will include: basic electrofishing theory; how to minimize fish stress and injury; equipment safety and performance; elements of standardized electrofishing; and field applications. The course fee is \$300. Course space is limited so [Register Here!](#) For questions contact Jeff Falke ([jfalke4@alaska.edu](mailto:jfalke4@alaska.edu)) or Jim Reynolds ([jbreynolds@alaska.edu](mailto:jbreynolds@alaska.edu)).

## 2019 Annual Meeting Pictures



*Incoming President Joel Markis presents new Past President Jeff Falke with a commemorative plaque during the AFS Alaska Chapter meeting in Sitka. Photo by Randy Brown.*



*During the AFS Alaska Chapter meeting in Sitka, Randy Brown relates the history of the Alaska Chapter's Yukon River Wild Fish resolution that helped formulate the Chapter Advocacy Policy. Photo by Bill Bechtol.*



*Student mentoring luncheon at the AFS Alaska Chapter meeting in Sitka. Photo by Bill Bechtol.*

*The AFS Alaska Chapter Executive Committee and the Molly Ahlgren Scholarship Award recipient during a break at the AFS Alaska Chapter meeting in Sitka. (L-R) Secretary Scott Ayers, Vice-President Sue Mauger, Treasurer Lee Ann Gardner, Molly Ahlgren Scholarship recipient Noah Khalsa, Student Representative Donnie Arthur, President-Elect Stephanie Quinn-Davidson, President Joel Markis, Past-President Jeff Falke. Photo by Randy Brown.*



## Guy Powell Passes



Long-time king crab biologist and Kodiak resident Guy Charles Powell passed away March 18, 2019, at his home overlooking the channel on Kodiak Island. Born April 3, 1933, Powell grew up in New Jersey, shifted to Colorado where he obtained a

Master's Degree in Marine Biology from Colorado State University, then moved to Kodiak in 1958 when Alaska was still a U.S. territory. Taking a job with the Alaska Department of Fish and Game, Guy focused his tenacious drive, balanced with an infectious sense of humor, on studies of king crab. He developed a world-renowned and cutting-edge expertise on the life history and reproductive biology of king crab. As a self-taught scuba diver, this biological passion included the first underwater photographic documentation of pods (mounds) of juvenile red king crab. Although retiring in 1984, Powell was still called upon periodically for his view of crab biology. Including numerous family members, Guy is survived by Merle Powell, his wife of 55 years; whom he met during his studies in Colorado. 🐙

## Kelp Makes Waves in Juneau

*Adapted from Alaska Sea Grant*

While Alaska is known for salmon, crab and halibut, a new seafood product is appearing on store shelves, the sea vegetable called bull kelp (*Nereocystis luetkeana*). Barnacle Foods, a small company in Juneau, is harvesting bull kelp from local waters and creating products like salsa, pickles, and seasonings. Owned and operated by Lia Heifetz, Max Stanley, and Matt Kern, Barnacle Foods was started in 2016 with the intent of providing locally harvested and sustainable food. Their long-term vision is to create jobs and help Alaska boost its food security.

While many high-quality foods are found in Alaska, many of these foods are only available for very short time periods. Barnacle Foods sought to harvest and process local ingredients, turning local ingredients into shelf-stable foods that are available throughout the year. Kern and Heifetz started by turning kelp into salsa in their own kitchen, followed by sales at Juneau's Public Market and Food Festival. Expanding production and launching a business involved obtaining a variety of permits to ensure products are safe for human consumption. Alaska Sea Grant serves as one of Alaska's process authorities to certify the safety of food production. With testing and guidance from seafood technology specialist Chris Sannito, an Alaska Sea Grant Marine Advisory agent based in Kodiak, and Brian Himelbloom, retired UAF seafood microbiologist, products from Barnacle Foods were evaluated for pH levels and other factors.

While the kelp products are currently sold online and in specialty food stores and gifts shops in Alaska, Barnacle Foods is also expanding into the Pacific Northwest and California. 🐙

## ADF&G Recognizes 2019 Advisory Committee Excellence in Service Awards

The Alaska Department of Fish and Game recently honored the 2019 Advisory Committee Excellence in Service Award winners. The advisory committee structure helps make Alaska the nation's leading example of a locally-driven fish and game management system. More than 700 Alaskans belong to 84 advisory committees up and down the coast and throughout the interior, arctic, and southcentral. It is through the work of these volunteers that regulatory bodies

like the Alaska Boards of Game and Fisheries develop regulations that respond to local needs. The Excellence in Service Award recognizes outstanding contributions in service to Alaska's communities, fish and wildlife, and the regulatory process by Advisory Committee members across the state. The 2019 awardees are: Charlie Lean, Northern Norton Sound; Mike Crawford, Kenai/Soldotna; Dave Rak, Wrangell; Moses Johnson, Sitka; and Richard Burnham, Middle Yukon. 🐙

## Student Subunit Happenings

*Justin Priest, Student Subunit Representative*

Fisheries students across Alaska kept the winter blues at bay and celebrated spring returning by keeping very active! As the second semester started there was plenty to keep folks involved. This Student Happenings also marks my final column in this role and I'm excited to pass the torch to Donnie Arthur. I would like to thank the AFS Alaska Chapter Executive Committee for the opportunity to serve, and their assistance with supporting students across the state. It's certainly been a fun role and very worthwhile.

The 45th Annual Chapter Meeting in Sitka in mid-March saw a lot of representation by students. There were 10 students who received AFS Student Travel awards and another 7 students volunteered to get registrations waivers. Each of these students were leaders in soliciting donations to raise funds for the Student Travel fund! In total, there were 17 student posters and 13 student oral presentations, all of which were very well done. Students recognized for their presentations include Chris Sergeant (best student oral presentation), Kelly Ireland (best graduate student poster presentation), and Alyx Hoover (best undergraduate student poster presentation). A special kudos to Chris Sergeant for donating his cash award back to the Student Travel Fund! In addition to the amazing research, there were lots of engaging social opportunities such as Fish Trivia, Spawning Run 5K, and a Whale Watching tour, all of which had strong student representation. We're looking forward to next year's meeting in Fairbanks. On a personal note, I was very impressed with each of the students that attended as they formed a cohesive bond across university locations. Keep your eye on this cohort as they're going places!

On Friday April 5th, the AFS Student Symposium was held in Juneau and Fairbanks, with students contributing remotely from Kodiak and Washington too! Many thanks to Ashley Bolwerk and Jesse Gordon for organizing this. Awards were given for best long talk (Marta Ree; Donnie Arthur runner-up), best short talk (Lia Domke; Courtney Hart runner-up), and the St. Hubert Research award for

best use of graphics (Donnie Arthur; Courtney Hart runner-up). Thanks to AFS Alaska, the St. Hubert Research Group, and UAF CFOS for financial support and especially thanks to all judges who volunteered for the day!

The AFS Alaska Chapter congratulates the following students for defending or graduating recently: Andrew Cyr (Ph.D., UAF) – Mercury concentrations and feeding ecology of Alaskan fish-based food webs; April Rebert (M.S., UAF) – Evaluating potential age structures for three Alaska crustacean species; Julie Nielsen (Ph.D., UAF) – Multi-scale movement of demersal fishes in Alaska; Marta Ree (M.S., UAF) – Linking freshwater growth to size-dependent marine survival: interactions between processes of climate, competition, and natural selection; Philip J. Joy (Ph.D., UAF) – The response of juvenile Coho and Chinook salmon stocks to salmon spawner abundance: marine nutrients as drivers of productivity; Genevieve Johnson (M.S., UAF) – Population genetics of Tanner crab (*Chionoecetes bairdi*) in Alaskan waters; Noel Sme (M.S., UAF) – Characterization of Saffron Cod (*Eleginus gracilis*) population genetic structure in the north Pacific Ocean; Alicia Schuler (M.S., UAF) – Whale-watching in Juneau, AK: assessing potential effects on humpback whales and understanding passenger perceptions. Congrats on all of your hard work finally coming to completion!



*Donald (Donnie) Arthur, new Student Representative for the AFS Alaska Chapter.*

## New Student Representative

Hello, my name is Donald (Donnie) Arthur, and I am ecstatic to be the new Student Representative for the Alaska Chapter of AFS! I have taken over the position from Justin Priest, who has provided some pretty big shoes to fill. But fortunately, I was able to learn a great deal working with Justin while he was in this role. I grew up right here in Alaska, having graduated from Palmer High School. As a young kid, I spent just about every weekend of the summers and falls fly fishing the Kenai River with my father; these experiences planted the seed for my passion for fish. Shortly after graduating high school, I traveled east to Syracuse, New York, where I received a B.S. in Aquatic and Fisheries Science from the State University of New York, College of Environmental Science and Forestry. My short absence from Alaska and learning about the history of fisheries in the lower 48 helped develop a deeper appreciation for Alaska and its fish. So without hesitation, I moved back to Alaska and began working for the Alaska Department of Fish and Game as a technician, and eventually as a fishery biologist. Over five years in this position, I've had some amazing experiences including teaching the salmon life cycle to school-age children, exploring all over the state for anadromous fish, and promoting the deepwater release of rockfish (*Sebastes spp.*). The latter led to me connecting with my advisor, Jeff Falke at the University of Alaska Fairbanks, and the development of my master's research on the reproductive biology of Yelloweye Rockfish in Prince William Sound. This past year, I served as the President for the AFS Fairbanks Student group. I look forward to applying what I learned while in that role to the Chapter Student Representative position. I am even more excited to begin working with the many great student groups around Alaska.

Back issues of *Oncorhynchus* can be found online  
<http://www.afs-alaska.org/newsletter>

## Molly Ahlgren Scholarship Award

Noah Khalsa

When I received news that I was the recipient of the 2019 Molly Ahlgren Scholarship Award, I was both excited and humbled. After reading the dedication to Dr. Ahlgren in *Oncorhynchus* and seeing the impact Molly left on the AFS Alaska Chapter community, it was evident that she was an amazing woman with an inspirational legacy. As a volunteer EMT, fisheries scientist, life-long learner, and generous woman dedicated to her students and the town of Sitka, her life is an inspiration for many. Receiving this award in Sitka, where she made her home and had an immense impact, was a special experience. I am grateful to have had the opportunity to see her aquarium at the Sitka Sound Science Center and learn more about her accomplishments. As a fisheries student and up and coming scientist, I hope to embody her same passion for science, vitality, and dedication to her peers, AFS, and Alaska.

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Noah Khalsa receiving the Molly Ahlgren Scholarship Award certificate from award committee chair Ray Hander at the AFS Alaska Chapter meeting in Sitka. Photo by Randy Brown.

## Pebble Mine EIS Comments

The draft Environmental Impact Statement (EIS) as prepared by the US Army Corps of Engineers for the proposed Pebble Mine Project is available at <https://pebbleprojecteis.com>. Public comments for the draft EIS may be submitted through July 1, 2019. You can provide comments through testimony at public meetings, by email to [drafteis@comments.pebbleprojecteis.com](mailto:drafteis@comments.pebbleprojecteis.com), or by mail to: Program Manager, US Army Corps of Engineers, 645 G St., Suite 100-921, Anchorage, AK 99501. 🗨️

## Meetings and Events

### 148th Meeting of the American Fisheries Society

September 29–October 3, 2019:

This meeting will be co-hosted by AFS and the Wildlife Society in Reno, NV. For more information, go to <https://afstws2019.org/about>.



### PICES 2019 PICES

October 16–

29, 2019: This meeting with the theme “Connecting Science and Communities in a Changing North Pacific” will be held in Victoria, BC. More information is at <https://meetings.pices.int/meetings/annual/2019/PICES/scope>.



### Shellfish - Resources and Invaders of the North

November 5–7, 2019: This symposium on northern hemisphere shellfish will be held in Tromsø, Norway. For more information, go to <https://www.ices.dk/news-and-events/symposia/shellfish/Pages/default.aspx>. 🗨️



## Molly Ahlgren Scholarship, continued

This scholarship allowed me to attend the AFS Alaska Chapter meeting where I had the opportunity to network with other students and fisheries professionals, learn about what science is being conducted around the state, and explore potential career paths. Learning about the diverse array of research projects going on around the state, and connecting with the people behind those projects, was very inspirational. Seeing presentations from the work fellow students were doing was also a great motivation. Not only did this scholarship allow me to attend the conference, but it will also help me continue my undergraduate degree in the College of Fisheries and Ocean Sciences at the University of Alaska Fairbanks. Furthermore, the Molly Ahlgren Scholarship will provide assistance in conducting my senior thesis research into the oceanographic drivers of nearshore fish distributions in the Beaufort Sea. After graduation I plan on continuing my education in graduate school and pursuing a career as a marine ecologist, contributing to the effective management and preservation of aquatic resources. I am incredibly grateful to have been chosen as the recipient this year, and hope to attend many more AFS meetings to come! 🗨️

## ONCORHYNCHUS

Oncorhynchus is the quarterly newsletter of the Alaska Chapter of the American Fisheries Society. Material in this newsletter may be reprinted from other AFS websites.

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Deadline for materials for the next issue of *Oncorhynchus* is June 10.

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