Scallop Plan Team Report
February 25-26, 2014
Land's End Resort
Homer, Alaska

The Scallop Plan Team held their annual meeting at the Land's End Resort in Homer February 25-26, 2014. Diana Stram chaired the meeting.

Plan Team members present: Diana Stram (NPFMC) co-chair, Gregg Rosenkranz (ADF&G Kodiak) co-chair, Scott Miller (NMFS Juneau), Peggy Murphy (NMFS Juneau), Rich Gustafson (ADF&G Homer), Jie Zheng (ADF&G Headquarters), Ryan Burt (ADF&G Kodiak), Quinn Smith (ADF&G Douglas).

Plan Team member absent: Brad Harris (APU)

Public and agency personnel present (for some or all of meeting): John Lemar (F/V *Arctic Hunter*) , Bill Harrington (F/V *Kilkenny*), Karla Bush (ADF&G Headquarters), Chris Siddon (ADF&G Headquarters), Elisa Russ (ADF&G Homer), Andrew Pollak (ADF&G Homer), Jan Rumble (ADF&G Homer), XianXian Zhang (ADF&G Anchorage), Ken Goldman (ADF&G Homer), Chris Russ (ADF&G Homer), Jim Stone (Alaska Scallop Cooperative), Jessica Glass (UAF).

Administrative Issues:

Agenda: The agenda for the meeting is attached.

Update on State Waters fishery

A new management plan for the open access state waters scallop fisheries was adopted by the Alaska Board of Fisheries at their January 2014 meeting in Kodiak. This was precipitated by legislative sunset of the state waters vessel based limited entry program. The management plan includes all tools currently used for management of the federal waters fishery plus provisions for preseason registration with an April 1 deadline, registration waters check in/out, daily reporting, vessel monitoring system requirement, and trip limits. If effort is similar to previous seasons, then management of the fishery will be status quo. If effort increases, management may invoke measures to assure harvest does not exceed the guideline harvest level. To date, two vessels have purchased Commercial Fisheries Entry Commission permits for vessels <80 ft to participate in the state waters scallop fishery.

Status of Statewide Scallop Stocks
Central Region

Rich Gustafson, ADF&G provided an overview of Central Region scallop stocks. He described the Central Region's dredge survey goals to: 1) determine scallop population biomass and abundance, 2) document scallop shell height distributions and age compositions, 3) continue development of their video sled/dredge technology, and 4) continue development of an age structured scallop population model.

Rich provided an overview of the 2013 Kamishak Bay survey areas for the north and south beds and survey and data collection methodologies. Survey results from 2005 through 2013 illustrate a declining population trend. The sled-dredge is a combination sled (with a video camera) and scallop dredge (6' wide). A pinning system on the back of the sled allows for a 6' wide scallop dredge to be attached. The sled-dredge setup allows for video cameras to look forward to obtain counts of scallops before the sled reaches them and also looking aft at the dredge to examine the efficiency of the gear (i.e. how many scallops go in vs. under the dredge); in addition, the sled-dredge captures scallops for collection of shell

height, meat weight, and age data. Rich described the work done to determine the fishing efficiency of the sled-dredge which is done by comparing the numbers of scallops counted in sled video footage to the numbers of scallops captured in the dredge. The overall efficiency of the dredge on the sled-dredge is 41%. The sled-dredge continues to undergo field tests with the goal of comparing catches to the 8' lined dredge used in the survey. He noted that the catch per unit effort relationships between scallop fisheries and fishery independent surveys track fairly consistently.

Rich described the Prince William Sound Kayak Island survey areas for the east and west beds as well as survey and data collection methodologies. East bed estimated abundance peaked in 2004 at 17.4 million scallops and has declined to 4 million scallops in 2012. West bed estimated abundance peaked at 17.9 million scallops in 2000, declined to a 2.0 million scallops in 2010, and increased to 2.8 million scallops in 2012. Rich showed age and shell height distributions by year and bed which illustrated scallop year classes. The fishery in the west bed was closed in 2010 due to low abundance and low numbers of young scallops under 100 mm shell height (SH). The east bed was closed in 2012 due to low abundance and concerns over age structure of the scallop population.

Rich provided a description of the scallop discard mortality study being done in conjunction with SPT member Brad Harris of Alaska Pacific University. The study is looking at the survival rates of individual scallops that have suffered varying levels of injury/damage as a result of being captured by dredge. The research will continue at Kayak Island during a May 2014 dredge survey.

Jie Zheng requested information about survey gear catch efficiency. Rich and Ken Goldman described efforts to improve efficiency. Bill Harrington of FV *Kilkenny*, the lone vessel participating in the Kamishak Bay scallop fishery in recent years, said that ADF&G's survey dredge may not be configured properly for the type of bottom in the area and offered his assistance with respect to the dredge itself and survey design.

Jim Stone of the Alaska Scallop Cooperative requested information regarding ADF&G's plans to incorporate "new" areas exploited for the first time over the last two seasons which lie east of the Kayak Island East Bed dredge survey grid. Rich and Ken described how they are trying to incorporate it into past survey data and future biomass estimates.

Westward Region

Gregg Rosenkranz summarized scallop stock status for ADF&G's Westward Region.

Kodiak Northeast District GHLs were set at 70,000 lb scallop meat for the 2011/12 season, 60,000 for 2012/13, and 55,000 for 2013/14, with CPUEs of 62 lb scallop meat/dredge hr, 47 lb scallop meat/dredge hr, and 59 lb scallop meat/dredge hr respectively. Scallop SH histograms show that size structure of Northeast District catches have remained consistent during recent seasons.

Kodiak Shelikof District CPUEs declined over recent seasons and GHLs were lowered from 170,000 lb for the 2010/11 season to 135,000 lb for 2011/12 and 105,000 for the 2012/13 and 2013/14 seasons CPUE for 2013/14 was 43 lb scallop meat/dredge hr, well below the 10-yr average of 55 lb meat/dredge hr. CPUE was affected by the fleet's response to high Tanner crab bycatch at the start of the season which led them to move away from productive tows to avoid bycatch that could have triggered a fishery closure.

The exploratory Kodiak Southwest District fishery was again opened by ADF&G commissioner's permit for the 2013/14 season with a GHL of 25,000 lb. Catches consisted primarily of large scallops with CPUE 38 lb meat/dredge hr and relatively high Tanner crab bycatch.

Most waters of the Alaska Peninsula Area have been closed to scallop fishing to promote stock rebuilding since 2001. Limited effort during the 2006/07 and 2008/09 seasons produced harvest of only 2,615 lb of scallop meat, suggesting that little recruitment occurred while no fishing took place. State waters in the area are closed to scallop fishing.

The Alaska Board of Fisheries opened an exploratory fishery in Unimak Bight, part of the Alaska Peninsula Area that has been closed to scallop fishing for many years. One vessel participated during the 2012/13 and 2013/14 seasons and located 2 tows with relatively high scallop catches. CPUE was 59 lb meat/dredge hr for 2012/13 and 61 lb meat/dredge hr for 2013/14. The vessel spent a considerable amount of time checking other parts of the area as requested by ADF&G.

Bering Sea Area scallop GHLs have been set at 50,000 lb meat each season since 2005/06. CPUE has ranged from 38 lb scallop meat/dredge hr to 52 lb scallop meat/dredge hr over this period, with most of the catch consisting of large, older scallops. Participants have commented that scallop densities appear relatively low but are consistent over a wide geographical area. Also, weather has a strong influence on catch rates.

Scallop fishing in the Dutch Harbor Area has been limited to a small bed outside Inanudak Bay in recent seasons. Harvests have been less than 6,000 lb scallop meat with CPUE over this period of 77 lb meat/dredge hr. Size and age data suggest this is a small, aging subpopulation with little signs of recruitment.

Southeast Region

SPT member Quinn Smith provided an overview of the Area D scallop fishery.

He noted that 4 of the 7 discrete beds identified in Yakutat District and District 16 included state waters that could be impacted by the open access fishery. Surveys have not been used to manage scallop fisheries in the region, and management relies on fishery data. Observer program data considered by managers includes time series of CPUE by bed, depletion, size and age structure, and changes in spatial distribution of effort over time. One goal of managers is to keep the GHLs static for a minimum 3 yr period.

During the 2013/14 season, minimum performance standards (MPS) were explored for the first time in the Southeast region. MPS was defined as the lowest cumulative season CPUE since biannual seasons were changed to a single season in 1997. If cumulative CPUE falls below the MPS when 50% of GHL is harvested, managers will meet to discuss time and/or area closures.

District 16

District 16 CPUE increased from 30 lb meat/dredge hour in 1995/96 to a 65 lb meat/dredge hour in 2000/2001. Effort and harvest have varied widely since then, with harvests <3,100 lb in 3 of the last 10 seasons. Overall there has been a decreasing trend in CPUE between the 2003/04 and 2013/14 seasons.

Yakutat

A declining trend in Yakutat fishery performance changed abruptly in 2013/14 when CPUE climbed to 51 lb meat/dredge hr from 35 lb meat/dredge hr the previous season. SH distribution plots showed signs of weak recruitment over the past few years, with scallops <100 mm SH caught and discarded in 2012/13.

Estimated 2013/14 Tanner crab bycatch in Yakutat District was the highest since 2001. Typically, Yakutat Tanner crab bycatch is composed of juvenile Tanner crab <40 mm SH with few mature adults encountered. Rich noted that a large number of small (pre-4) Tanner crab were observed during the Kayak Island large-mesh trawl survey.

Kamishak Bay Age Structured Model Review:

The team received a presentation from XinXian Zhang of ADF&G on progress in developing a Kamishak Bay age structured stock assessment model. Initial work on the model was by Bill Bechtol in 2000.

The model estimates catch by age and year as a function of survival of cohort less fishing mortality. The model also uses fishery age composition data and survey data to estimates abundance at age by measuring selectivity as ratio of fish of age "i" caught to sum of fish caught across ages in that year. The model assumes fishery selectivity is a logistic function with two parameters, alpha and beta, where alpha is age. The model has predicted survey age composition and fishery age composition and these are compared using minimization of the total sum of squares. The model estimates abundance at age over years 1985 to 2012. Preliminary results show that overall abundance has declined consistently during this time frame. Age one abundance declined through 2009 then increased considerably and may be signaling the beginning of a stock recovery.

The SPT raised several questions regarding the data and estimation techniques. The team specifically asked how the model biomass estimate compares with managers' estimates for the Kamishak beds. The author and Central Region staff indicated that they have not yet made that comparison as this is the first run of the model and the first time it has been presented. New research on discard mortality may be added to the model; a more advanced Kamishak model and a work on a Kayak Island model are planned for next year.

Central Region managers pointed out that the model looks to be performing relatively well with respect to developments in the Kamishak beds with a major mortality event in 2002 followed by drastic reductions in biomass estimates and continued decline to the present. The model applies to the North bed only. One goal is to take peaks and valleys out of the model estimates to better estimate appropriate harvest rates and levels to close the fishery.

SPT Suggestions and Comments:

- Run this for just exploitable age groups to better estimate biomass of exploitable stock.
- Age 1 increase is likely highly uncertain. We will need a few more years to see if that continues.
- At present natural mortality is a constant (15%) across all years. The author should consider a range of natural mortality levels and conduct a sensitivity analysis on how this affects the model estimates. Similarly, how does gear efficiency estimate affect model results?
- The author should do diagnostics of different data and age proportions of catch and survey data.
- Survey biomass should be considered in the model. Presently the model biomass is based on catch.
- The present abundance estimate is uncertain: it may be too high or too low. Thus, the model should focus on exploitable biomass.
- A sensitivity analysis of the survey data would help show how that uncertainty may impact the model estimates.
- The model would benefit by including growth equations and from conducting Monte Carlo simulations of mortality and growth estimates to create confidence intervals for those estimates.

- The author should present this model to the Council's Scientific and Statistical Committee for their review and comment.

Research Overview: Scallop Observer Program and Alaska CamSled.

ADF&G scallop biometrician Gregg Rosenkranz gave the SPT a presentation on work with scallop observer program data and Alaska CamSled. Gregg noted that results from this research support the notion that weathervane scallops are a spatially structured stock, with a metapopulation composed of heterogeneous subpopulations not closed to recruitment from other subpopulations due to the pelagic larval life history phase. Many problems are encountered when traditional stock assessment techniques are applied at the subpopulation level: estimation of survey dredge efficiency and size selectivity, steep spatial gradients in parameters such as growth and mortality, locally persistent fishing effects, etc. (see Orensanz et al. 2005 paper on 'S-fisheries' for more details). Also, stocks such as scallops do not appear to conform to dynamic pool and unit stock assumptions used in development of classical assessment theory.

Some advantages of the imaging approach to scallop research with CamSled include: no estimates of dredge efficiency, non-intrusive sampling appropriate for closed waters which are an essential part of spatial management, detailed data on habitat recorded and archived, direct observations of species interactions such as predation by sunflower sea stars and octopus, and possibility of machine processing large image data sets in the future.

Disadvantages of the imaging approach include: effects of murky water image quality, technical challenges given lack of resources such as computer programmers and oceanographic technicians, managing and working with large data sets, and statistical problems due to patchiness and zero inflation.

In theory, incorporation of habitat and species interactions could improve assessment models, but work is in early stages of development, primarily by the HabCam group from WHOI and NOAA Fisheries NEFSC. NOAA is providing funding for HabCam as they transition from a mostly-dredge to a mostly-imaging approach for their large scallop survey on Georges Bank. HabCam's Scott Gallager is working on habitat mapping and computer image processing; Dvora Hart and others from NEFSC are working on scallop abundance estimation and inclusion of covariates such as depth and substrate in their models. Their approach is zero inflated GLMMs with kriging of residuals. Graduate students are difficult to attract to their project due to lack of funding. Also, machine vision programmers have many work/research opportunities in medical and defense imaging. A group from ADF&G/CamSled attended a workshop on imaging techniques in November at WHOI and discussed these and many other issues with HabCam and NEFSC researchers.

Students from Brad Harris FAST Lab at APU will be reviewing CamSled images from scallop beds on the east side of Kodiak Island this summer. Dr. Harris plans to apply data analysis techniques from his work on east coast scallop populations.

The Scallop Observer program has been aging scallop shells and collecting data on scallop SH-meat weight relationships from different fishing areas. Spatial gradients in growth and size-at-age have been noted, with Kodiak scallops showing the fastest growth statewide. Growth rates vary along the eastern GOA, with meat weight given SH increasing from District 16 to Kayak Island. Measurements from the 2013/14 season showed that meat weight was clearly above average in both Yakutat District and the Kodiak Area last summer, demonstrating that both temporal and spatial variability affect meat recovery rates.

The SPT had a long and spirited discussion regarding use of CamSled and dredge survey data in setting GHLs. Gregg argued that spatial management approaches were more likely to produce a sustainable scallop fishery than methods based on classical assessment theory and area swept methods. The SPT and audience members questioned the seeming disconnect between use of CamSled imagery for habitat mapping and ecological studies when biomass estimates are needed for use in scallop fishery management. Scallop density and biomass estimates have been produced from CamSled images and have been presented to ADF&G managers who requested further review. Work will continue in Kodiak Northeast District with a survey in May 2014 using a chartered scallop vessel and image review by FAST Lab students.

Master's thesis on scallop:

Jessica Glass is a Masters Candidate in the Marine Ecosystem Sustainability in the Arctic and Subarctic program at the University of Alaska, Fairbanks, School of Fisheries and Ocean Sciences. Her research aims to: 1) quantify spatial distribution and species composition of benthic communities on weathervane scallop beds; 2) quantify changes in benthic communities on weathervane scallop beds over 1996-2012; 3) relate variability in community composition to environmental and anthropogenic variables; 4) use video survey data off of Kodiak to compare the effectiveness of using dredges to measure benthic community composition; 5) analyze socioeconomic factors related to the scallop fishery and evaluate the risks and benefits for scallop industry involvement in CSF (community supported fishery) programs in Alaska.

Jessica's research relied on haul composition data from the scallop observer program from 1996 through 2012. A total of 94 taxa were aggregated from family to class or higher, and a series of environmental variables (depth, sediment, temperature, currents) were incorporated along with anthropogenic variables (scallop effort, trawl effort, spatiotemporal catch estimates). The data were analyzed using the Bray-Curtis similarity coefficient and plotted spatially as aggregated hauls by both bed and year. An analysis of similarity (non-parametric analysis of variance) was performed on Shelikof Strait beds and showed significant differences between beds; however, high overlap in species composition between beds was also observed. Other results: dominant taxa were more abundant in some beds, species composition changed over time in the heavily fished Kodiak Shelikof District bed, temporal and spatial gradients in species composition were observed in the eastern GOA, effects of sediment and depth did not appear to be significant.

An attempt was made to compare CamSled and haul composition data for beds off Kodiak but problems were encountered because haul composition data from observer sampling was by weight only and CamSled data are densities that have not been converted to weight. Presence/absence was compared for the two data sources and though they are difficult to compare directly, they both show similar things in terms of separation of taxa within beds by sediment type. Overall, spatial and temporal differences are evident in both the Bray-Curtis and presence/absence analyses and the research is now focusing on correlating results with environmental variables and fishing effort.

A socioeconomic analysis was also conducted using Strengths, Weaknesses, Opportunities, and Threats (SWOT) for the scallop fishery by conducting semi-structured interviews of 29 individuals familiar with the fishery. The interviews were conducted in person when possible or by phone and included seven biologists, 8 fishery managers, 7 industry members, and 7 "other" participants who could not be categorized into the first three groups. The SWOT questionnaire was organized around 5 themes: social, technological, economic, environmental, and regulatory.

The presentation focused on results of the social and environmental aspects of the SWOT. Social strengths of the fishery include: all boats are home-ported in Kodiak; impacts to communities via landing taxes, vessel expenditures, deliveries, crew earnings, etc., are within Alaska communities; the fishery is cleaner than in the past, improving its image; Homer residents see it as a local fishery and enjoy buying scallops directly at the dock; direct sales occur at the dock, in farmers markets, restaurants, plants, and grocery stores in Alaska. Social weaknesses include: the fishery is small and impact and awareness in Alaska is limited; there is a disproportionate impact on communities, there are negative attitudes towards dredging, bycatch, and fleet consolidation; there are misconceptions about the fishery (e.g., how it operates, where vessels are based, bycatch). Social opportunities for the fishery include the following: it is possible to Improve public perception especially with all Alaska based boats; can promote in-state product sales, can improve awareness by expanding market to other communities; can Improve direct connection with communities; and joining a Community Supported Fishery would raise awareness. Finally, the research identified the following social threats to the fishery: decreased harvest in recent years are diminishing positive impacts on communities; negative perceptions about consolidation and bycatch can lead to more legislative action; many people will always be opposed to dredging and greater awareness of the fishery may contribute to this; overseas demand for scallops pushes more product out-of-state at a high price.

Environmental strengths of the fishery include: conservative management; observer monitoring and relatively small quotas; small fishery footprint due to closed areas that provide a buffer against recruitment failures and climate change; tight crab bycatch caps; industry self-regulation. Environmental weaknesses include: lack of fishery-independent surveys in most areas; effects of dredging; small and data poor stock; recruitment processed and larval transport poorly understood; lack of knowledge regarding weak meats and boring worms; concerns about declining CPUE and size/age structure. Environmental opportunities for the fishery include: abundance assessments using CamSled data; industry participation in research; research opportunities in climate change and ocean acidification effects on scallops and larvae, currents and their effect on food sources and weak meats, genetic diversity, recruitment, and metapopulation structure; possible to assess dredging and other fishery impacts on scallops, benthic communities and habitat, and crab discard mortality. Finally, the research identified the following environmental threats to the fishery: decline of older, larger scallops; climate-change threats to recruitment, circulation, productivity, food supply, and development; potential substantial long-term effects of dredging on habitat and ecosystem; and bycatch.

The research also explored the potential for the scallop fishery to become a Community Supported Fishery (CSF). The following perceptions regarding a scallop CSF were identified: joining a CSF could raise awareness and improve perceptions of the fishery; high demand for scallops in many communities; if CSFs can't offer competitive prices the economic benefit to the industry is unclear especially in light of the fact that there are presently sales at the dock & in farmer's markets; negative perceptions of dredging and a lack of awareness regarding the fleet.

Research Priorities

The team made the following changes to the research priorities as approved by the Council (see attached revisions in track-changes).

Data-poor workshop planning

The team held a planning discussion on the suggestion from last year's meeting to convene a workshop on assessment and management of data poor stocks such as scallops where population-wide biomass

estimates are not economically feasible. The team agreed to broaden the workshop to include other North Pacific stocks managed using primarily catch information (e.g. several BSAI crab stocks and some groundfish stocks).

Ideas for workshop topics included:

- Alternative approaches for estimating MSY and setting GHLs
- Control rule analyses such as used in Australia (including catch and other information)
- Depletion-Corrected Average Catch Analysis (DCAC)
- Productivity and Susceptibility Analysis (PSA) for scallops
- Spatial approaches to management (MPAs, rotational management)

Diana Stram will take the lead on organizing the workshop, including soliciting feedback from assessment authors, plan team members and SSC on topics and approaches, compiling a repository (website)of references for consideration of applicable approaches and coordinating a discussion with the Crab Plan Team at their May meeting. The team intends to hold this workshop sometime in the coming year.

New business

BOF issues

There were no BOF issues for discussion in this cycle.

SPT meeting for 2015

The SPT identified the week of February 23rd for their 2015 meeting. The meeting will be held in either Anchorage or Kodiak.

Letter from Representative Seaton:

The attached letter from Representative Seaton was submitted by email to the SPT immediately prior to the meeting. The team did not address concerns raised in the letter but agreed to forward it to the Council for their consideration.

The meeting adjourned at 12pm on February 26th.

Scallop Plan Team meeting

February 25-26, 2014

Land's End

Homer, AK

Draft agenda 2/20/2014

Tuesday February 25: 9:00am – 5:00pm

9:00am

- Administration: Introductions and approval of agenda, schedule for SAFE compilation/minutes assignments, presentations to SSC (Stram)

9:15am

- Update on State Waters fishery

9:45am

- Status of Statewide Scallop Stocks and SAFE report-Catch specifications by area
  - Central Region (Gustafson)
  - Westward Region (Rosenkrantz)
  - Southeast (Smith)

12:00-1:00pm Lunch

1:00 pm

- Central region age-structured model review (Zhang)

3:00 pm

- Review/respond to any remaining SSC comments

4:00 pm

- Tour of the ADF&G vessel Pandalus (if possible)

Wednesday February 26: 9:00am – 12:00pm

9:00 am

- Research overview:
  - Update on Camsled research (Rosenkrantz)

- Update on benthic community analysis and socioeconomic analysis(Glass)

10:00am

- Research Needs"
  - Review and revise stock structure template; discussion of PSPA analyses
  - Data poor workshop discussion:
    - topics and planning
    - potential for additional analyses on MSY 10:00 am
  - Research priorities: review and revise;

11:30 am

- New business
  - BOF proposals or modifications
  - SPT meeting for 2015

12:00pm adjourn

141	**Estimate scallop stock abundance**
	Status: No Action
	Estimate scallop stock abundance in unsurveyed areas using fishery independent methods including computerized image analysis of current camera sled data~~.~~
151	**Acquire basic life history information (e.g., natural mortality, growth, size at maturity) for data-poor stocks.**
	Status: Partially Underway
	Acquire basic life history information needed for stock assessment~~, PSC, and bycatch management~~ of data-poor stocks, such as scallops, sharks, skates, sculpins, octopus, grenadiers, squid, and blue king crab (Bering Sea), golden king crabs (Aleutian Islands), and red king crab (Norton Sound). Specifically, information is needed on natural mortality, growth, size at maturity, and other basic indicators of stock production/productivity). Source/sink dynamics for scallop stocks is critical to understanding stock structure [note highest overall priority for assessment]
163	**Expanded studies to identify stock and management boundaries**
	Status: Underway
	To identify stock boundaries, expanded studies are needed in the areas of genetics, mark-recapture, reproductive biology, larval distribution, and advection. Such boundaries are to be evaluated so that consequences of management and risks ~~-~~are clear. Verify stock structure and source/sink dynamics including physical oceanographic, genetic and life-history studies.[Note refer to 151 as well]
166	**Develop age-structured models for scallop assessment**
	Status: Partially Underway
	Age structured models for scallop are needed to increase understanding of population dynamics and harvestable surpluses.
154	**Conduct multivariate analysis of bycatch data from the scallop observer program**
	Status: Underway
	Conduct multivariate analysis of bycatch data from the scallop observer program (haul composition data) and camera sled data. ~~The analysis should include an investigation of localized depletion of scallops relative to fishing effort.~~
316	**Ocean Acidification and Scallops: monitoring water quality**
	Status: No Action
	Seasonal water quality monitoring in known scallop areas
317	**Effects of Ocean Acidification on Scallops**
	Status: No Action
	Studies to understand the mineralization of scallop shells through life cycle and across spatial variability
M	
106	**Improve discard mortality rate estimates for scallop**
	Status: Partially Underway
	Field studies estimating Alaskan scallop discard mortality: relationship between capture, release

Formatted: Strikethrough, Not Highlight

	condition and survival of scallops
112	**Analyses of fishery effort and observer data for scallop**
	Status: No Action
	Assess impacts of temporal and spatial effort by a limited number of vessels on CPUE and observer data for management purposes
160	**Develop and evaluate global climate change models (GCM) or downscaled climate variability scenarios on recruitment, growth, spatial distribution**
	Status: Underway
	Quantify the effects of historical climate variability and climate change on recruitment, growth, and spatial distribution, develop standard environmental scenarios (e.g., from GCMs) for present and future variability based on observed patterns.
161	**Climate and oceanographic information covering a wider range of seasons is needed**
	Status: Partially Underway
	There is also a need for climate and oceanographic information that covers a wider range of seasons than is presently available.
315	**Area-specific variability in scallop population processes**
	Status: No Action
	Investigate area-specific variability in vital population processes including growth, recruitment, natural mortality and movement, including mark-recapture tagging studies.

Alaska State Legislature

State Capitol Room 102
Juneau, Alaska 99801-1182
(907) 465-2689
Fax: (907) 465-3472
1-800-665-2689

270 W Pioneer Ave. Suite B
Homer, Alaska 99603
(907) 235-2921
Fax: (907) 235-4008
1-800-665-2689

REPRESENTATIVE PAUL SEATON
HOUSE DISTRICT 30

February 25, 2014

Scallop Plan Team
North Pacific Fishery Management Council
605 West 4th, Suite 306
Anchorage, Alaska 99501-2252

Scallop Plan Team Members,

I understand that the Scallop Plan Team is meeting in Homer today and that I am able to submit public comment on issues pertinent to Scallop Management in Alaska.

Through the recent deliberations on and sunset of the state water vessel limited entry program, the Alaska State Legislature has been made aware of the systematic consolidation of scallop permits under the federal license limitation program.

I would like to request that the Scallop Plan Team forward the federal scallop permit consolidation issue to the North Pacific Fishery Management Council for a comprehensive analysis in order to determine whether it may have violated National Standard 4 of the Magnuson-Stevens Fishery Conservation and Management Act (MSRA) or any other portions of the MSRA or Council policy that attempt to constrain control of a fishery.

I am concerned about this consolidation because the MSRA specifically mentions the need for constraints on ownership and control of fisheries. This is usually discussed under the term "excessive shares", which is mentioned in National Standard 4, Section 301 (a) (4).

(4) Conservation and management measure shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (1) fair and equitable to all such fishermen; (b) reasonably calculated to promote conservation; and (c) carried out in such a manner that no particular individual, corporation, or other entity acquires and excessive share of such privileges.

Section 303A (c) (5)(D) of the MSRA of 2006 refers to excessive shares:

(d) Ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by

(i) establish a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use: and

(ii) establishing any other limitations or measures necessary to prevent an equitable concentration of limited access privileges.

When developing limited access privilege programs, the MSRA of 2006 states that a Council should:

(B) consider the basic cultural and social framework of the fishery, especially through

(i) the development of policies to promote the sustained participation of small owner-operator fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements; and

(ii) procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery;

(C) Include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges.

Amendment 4 to the federal Fishery Management Plan (FMP) for the Alaska weathervane scallop fishery addresses excessive shares, with a provision that states no person, corporation, or entity can hold or control more than two scallop licenses. The final rule of the plan states:

The two-license ownership limit is intended to prevent any person from obtaining an excessive share of harvest privileges in the scallop fishery as required by national standard 4 of the Magnuson-Stevens Act. The Council determined that holding more than two scallop LLP licenses would constitute an excessive share in the context of this relatively small fishery.

As illustrated by the attached CFEC table, more than 90% of the scallops harvested in Alaska are taken by a small group of owners who have assumed virtual control over the fishery. Through the schemes of nonrenewal and suspension of permits for vessels through apparent arrangement with the two large participating vessels, there is an effective consolidation of the fishery into the hands of the few owners of the vessels without the actual acquisition of the permits from non-participating vessel license boat owners. This appears to be an attempt to accomplish exactly what the law prohibits in a way that avoids the technical holding of the number of permits. This will change in 2014 when the narrow portions of scallop beds in state waters become open to access. However, these same boats will likely get permits for the adjoining parts of the beds in Alaska state waters doubling their number of permits.

Access to new entrants in the federal waters of the fishery is severely restricted, especially for boats over 80 feet in length, and should be the subject of further analysis by the Council.

Thank you for your consideration,

Representative Paul Seaton

Table 5. Ownership of State (W2ABV And W2BBV) and Federal (SLLP) Scallop Limited Entry Permits, Including Relinquished Permits or Eligibility, as of December 2012.

	Permit	Named Vessel	Listed Owner	Principal Shareholders
Active CFEC Vessel Permits	W2ABV85007 *	Ocean Hunter	Ocean Fisheries LLC	Jim Stone Glenn Mikkelsen Egil Mikkelsen John Lemar Stein Nyhammer
	SLLP005 *		Arctic Hunter LLC	James H. Stone
	W2BBV85012	Wayward Wind	Alaskan Dream Ventures, Inc.	Max Hulse Robert Hulse Mary Hulse Denise Hulse
	SLLP004		Max G. Hulse	n/a
	W2ABV85013 *	Carolina Boy	Carolina Boy, Inc.	William Wells, Jr.
	SLLP009 *		Ocean Fisheries LLC	Jim Stone Glenn Mikkelsen Egil Mikkelsen John Lemar Stein Nyhammer
	W2ABV85014 *	Forum Star	Forum Star LLC	Bernt Bodal Jeff Davis Coastal Bering Sea Fish Assoc Management
	SLLP002 *		American Seafoods Co. LLC	(unavailable)
	W2BBV85015	Kilkenny	William J. Harrington	n/a
	SLLP003		William J. Harrington	n/a
Suspended CFEC Vessel Permits	W2ABV85008 *	(formerly Provider)	Thomas Minio	n/a
	SLLP008 *	(currently fished on F/V Provider)	Provider Fisheries LLC	Jim Stone Glenn Mikkelsen Egil Mikkelsen John Lemar Tom Minio Stone Management
	W2BBV85018	(formerly Arctic Storm)	EWT LLC	Erik Orman Warren J Alexander
	SLLP006		EWT LLC	Erik Orman Warren J Alexander
Relinquished CFEC Permits or Relinquished Eligibility for a Permit	~~W2ABV85016~~	~~Pursuit~~	~~Future Fisheries, Inc~~ (permit relinquished in 2007)	~~Roy Enoksen~~ ~~Ronald Enoksen~~ ~~Peter Anthony~~ ~~Francis O'Hara~~
	SLLP007 *	(currently fished on F/V Arctic Hunter)	Ocean Fisheries LLC	Jim Stone Glenn Mikkelsen Egil Mikkelsen John Lemar Stein Nyhammer
	~~W2ABV85xxx~~	~~Carolina Girl II~~	~~Alaska Scallop LLC~~	
	SLLP010 *	(relinquished eligibility rights for a CFEC permit associated with F/V Carolina Girl II)	Alaskan Scallop Fisheries	Jim Stone Glenn Mikkelsen Egil Mikkelsen John Lemar Tom Minio

Notes: 1) An asterisk (*) indicates permits that are associated with the Alaska Scallop Association cooperative.
2) Sources: CFEC vessel limited entry permit files; NMFS SLLP files; the Alaska Division of Corporations, Business & Professional Licensing, online database at www.commerce.alaska.gov/DCC/Home_corporations.html; and the Washington Secretary of State, Corporations and Charities Division online database at www.sos.wa.gov/corps