MSC 2nd Annual Surveillance Report

for

Alaska Flatfish Fishery – Bering Sea-Aleutian Islands

December 2017

CLIENT DETAILS:
Alaska Seafood Cooperative
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MRAG Americas, Inc.
Don Bowen, Jake Rice, and Robert J. Trumble

Certificate No.:

Arrowtooth Flounder	MRAG-F-0021
Kamchatka Flounder	MRAG-F-0022
Alaska Plaice	MRAG-F-0023
Flathead Sole	MRAG-F-0024
Northern Rock Sole	MRAG-F-0025
Yellowfin Sole	MRAG-F-0026

MSC reference standards:
MSC Standards Version 1.1
MSC Certification Requirements Version 1.3
MSC Guidance for Certification Requirements Version 1.3
MSC Process Certification Requirements Version 2.0

Contents

1. General Information

Fishery name	Bering Sea-Aleutian Islands Alaska Flatfish Fishery		
Unit(s) of Assessment (UoA)	Trawl fishing in the Bering Sea-Aleutian Islands for Yellowfin sole; Flathead sole; Arrowtooth flounder; Alaska plaice; Northern rock sole; Kamchatka flounder		
Date certified	29 Oct 2015	Date of expiry	28 Oct 2020
Surveillance level and type	Surveillance level 1, Remote surveillance [see FCR v2.0 7.23.1-7.23.4]. No change in proposed surveillance level		
Date of surveillance audit	16-20 Oct 2017		
Surveillance stage	1st Surveillance		
	2nd Surveillance	X	
	3rd Surveillance		
	4th Surveillance		
	Other (expedited etc.)		

Fishery name	Bering Sea-Aleutian Islands Alaska Flatfish Fishery	
Surveillance team	Lead assessor: Robert J Trumble Assessor(s): Don Bowen, Jake Rice	
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2. Background

This report contains the findings of the second surveillance cycle in relation to the Bering Sea-Aleutian Islands fisheries. The fisheries had no conditions or recommendations. No performance indicators were rescored.

2.1. Update on the fishery since the 2016 surveillance audit

Table 1a. TAC and Catch Data - Yellowfin sole

TAC	**Year**	**2016**	**Amount**	**144,000 t**
UoA share of TAC	**Year**	**100%**	**Amount**	**144,000 t**
UoC share of TAC	**Year**	**100%**	**Amount**	**144,000 t**
Total green weight catch by UoC	**Year (most recent)**	**2016**	**Amount**	**130,500 t**
	Year (second most recent)	**2015**	**Amount**	**126,933 t**

Table 1b. TAC and Catch Data - Flathead

TAC	**Year**	**2016**	**Amount**	**21,000 t**
UoA share of TAC	**Year**	**100%**	**Amount**	**21,000 t**
UoC share of TAC	**Year**	**100%**	**Amount**	**21,000 t**
Total green weight catch by UoC	**Year (most recent)**	**2016**	**Amount**	**9,353 t**
	Year (second most recent)	**2015**	**Amount**	**11,308 t**

Table 1c. TAC and Catch Data – Arrowtooth flounder

TAC	**Year**	**2016**	**Amount**	**14,000 t**
UoA share of TAC	**Year**	**100%**	**Amount**	**14,000 t**
UoC share of TAC	**Year**	**100%**	**Amount**	**14,000 t**
Total green weight catch by UoC	**Year (most recent)**	**2016**	**Amount**	**9,712 t**
	Year (second most recent)	**2015**	**Amount**	**11,267 t**

Table 1d. TAC and Catch Data – Alaska plaice

TAC	**Year**	**2016**	**Amount**	**14,500 t**
UoA share of TAC	**Year**	**100%**	**Amount**	**14,500 t**

UoC share of TAC	**Year**	**100%**	**Amount**	**14,500 t**
Total green weight catch by UoC	**Year (most recent)**	**2016**	**Amount**	**13,452 t**
	Year (second most recent)	**2015**	**Amount**	**14,614 t**

Table 1e. TAC and Catch Data – Northern rock sole

TAC	**Year**	**2016**	**Amount**	**57,100 t**
UoA share of TAC	**Year**	**100%**	**Amount**	**57,100 t**
UoC share of TAC	**Year**	**100%**	**Amount**	**57,100 t**
Total green weight catch by UoC	**Year (most recent)**	**2016**	**Amount**	**45,800 t**
	Year (second most recent)	**2015**	**Amount**	**45,466t**

Table 1f. TAC and Catch Data – Kamchatka flounder

TAC	**Year**	**2016**	**Amount**	**6,500 t**
UoA share of TAC	**Year**	**100%**	**Amount**	**6,500 t**
UoC share of TAC	**Year**	**100%**	**Amount**	**6,500 t**
Total green weight catch by UoC	**Year (most recent)**	**2016**	**Amount**	**4,533 t**
	Year (second most recent)	**2015**	**Amount**	**4,994 t**

2.2. Changes to Management systems

The overall management system remained substantially consistent for the period since re-assessment. The fishery operates under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and under the management authority of the North Pacific Fishery Management Council and the National Marine Fisheries Service. Congress has begun preparation for re-authorization of the MSA, but that did not affect the operations of the fishery in 2015 or 2016. The Council set harvest specifications and conducted in-season management for the fishery as normal https://alaskafisheries.noaa.gov/harvest-specifications/field_harvest_spec_year/2017-2018-841.

The Council maintained standard operating procedures, with electronic documents available on the Council website. The NMFS in-season management branch successfully tracked the management requirements of the many specific fisheries, including BSAI flatfish to avoid harvest overages for the fisheries.

Observer program

At the core of the North Pacific monitoring system is a comprehensive, industry-funded, on-board observer program, coupled with requirements for total weight measurement of most fish harvested. Used in conjunction with reporting and weighing requirements, the information collected by observers provides the foundation for in-season management and for tracking species-specific catch and bycatch amounts. No substantial changes in the North Pacific Groundfish Observer Program occurred during 2015 and 2016 that would affect the MSC certification http://www.npfmc.org/observer-program/. Two observer issues are under development and evaluation by the Council: 1) Shift to industry-only funding for Gulf of Alaska and Bering Sea-Aleutian Islands observer programs; and (2) electronic monitoring (EM).

The Council and NMFS have used supplementary Federal funding to support reliable and scientifically valid observer coverage for vessels in partial coverage since 2013, and an emphasis on the partial coverage sector in 2016 resulted in higher coverage and elimination of spatial and temporal bias, compared to 2014 (2016 Observer Annual Report). Continued

loss of supplemental funds will result in loss of observer sea days and return of spatial and temporal bias.

The Council submitted Amendment 114 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area and Amendment 104 to the Fishery Management Plan for Groundfish of the Gulf of Alaska (collectively referred to as the FMPs) to the Secretary of Commerce (Secretary) for review https://www.federalregister.gov/documents/2017/03/10/2017-04716/fisheries-of-the-exclusive-economic-zone-off-alaska-integrating-electronic-monitoring-into-the-north. If approved, Amendments 114/104 would integrate electronic monitoring into the North Pacific Observer Program. The Council intends to integrate EM tools into the Observer Program for the fixed gear groundfish and halibut fisheries and to develop EM for catch estimation for this fleet http://www.npfmc.org/observer-program/. A 2017 pre-implementation plan and cooperative research is in development to identify key decision points related to operationalizing and integrating EM systems into the Observer Program for fixed gear vessels in a strategic manner. The experience and results from the data collected during the pre-implementation and research phase will inform the future implementation of EM as an integrated part of the Observer Program.

The MRAG assessment team will monitor the impacts of these issues for potential impacts to the observer program.

Monitoring and record keeping No changes to monitoring and record keeping occurred during 2014 and 2015 that would affect the MSC certification.

CDQ No changes to the CDQ program occurred during 2014 and 2015 that would affect the MSC certification http://www.npfmc.org/community-development-program/. The Council took final action to approve a regulatory amendment that would allow CDQ groups the opportunity to lease Area 4B, 4C, and 4D halibut IFQ in years where the catch limits are below certain thresholds. In Area 4B, this option would become available to the groups if the catch limit was 1 million pounds or lower. This option would be available for Area 4C and 4D when the catch limit in Area 4CDE was at or below 1.5 million pounds. Leased IFQ would be available to vessels less than or equal to 51 feet length overall, subject to the groups' internal management. This action would not convert IFQ to CDQ. IFQ leasing is subject to restrictions to prevent violating goals of the program.

2.3. Changes to Relevant regulations

No substantial changes to groundfish management occurred during the past year that would affect the MSC certification https://alaskafisheries.noaa.gov/infobulletins/search.

2.4. Changes to personnel involved in science, management or industry

There have been few organizational and personnel changes at the management authorities. NMFS AFSC, NMFS AKRO, and the NPFMC have maintained the science and management staff with little change; changes to personnel have not affected the institutional capacity. Chris Oliver left as Director of NPFMC to become head of NMFS; Dave Witherell, previously Assistant Director of NPFMC, was appointed Director, which assures continuity within the organization. Jason Anderson, former Manager of ASC, left the organization in 2017 and his duties were taken over by Beth Concepcion (Data Manager) and Christopher Oliver (Staff Analyst). This change has not caused any disruptions in dealing with the certification issues.

2.5. Changes to scientific base of information – including stock assessments

The science, information, and management of the fishery took place following the normal procedures of the past several years. Fishery dependent and independent data collection, stock assessment, monitoring and evaluation of ecosystem impacts continued at a high level. The North Pacific Council set yearly harvest specifications for the flatfish and other fisheries https://alaskafisheries.noaa.gov/harvest-specifications/field_harvest_spec_year/2017-2018-841. The assessment team received no information that identified an issue requiring further investigation that could lead to rescoring of any performance indicators.

Principle 1

Information for assessing the status of flat fish species comes from the Stock Assessment and Fishery Evaluation (SAFE) reports (NMFS 2016), available at http://www.afsc.noaa.gov/REFM/Stocks/assessments.htm. Catches of BSAI flatfish continue to be constrained by halibut bycatch limits.

Yellowfin sole

Yellowfin sole in BSAI is managed as a Tier 1a stock (Wilderbuer et al. 2016). The harvest strategy and HCR have not changed from the program described in the Public Certification Report. The 2016 assessment model was nearly identical to the formulation used in last full assessment of the stock in 2014, with minor changes to weight-at-age data and time series were updated. Spawning stock biomass has shown a long term decline due to only a small number of above average year classes since the mid-1990s, but the 2017 estimate of 778,600 is 184% of $B_{msy,}$ reflecting the beginning of recruitment to the 2003 year-class and the above average 2006 year-class, so total and SSB are expected to be sustained or increase over the next several years.

The estimate of the 2017 ABC is 268,000 t, and the estimate of OFL is 287,000 t. The 2016 TAC was set at 144,000 t (54% of the ABC) and total catch was 130,500 t (49% of the ABC and 91% of the TAC). No significant changes in fishery operations are expected in 2017 that would substantially alter the impact of the fishery on the resource. Because yellowfin sole is not being subjected to overfishing, is not overfished, and is not approaching an overfished condition, no concerns with continued compliance with P1 criteria and benchmarks were found or are expected in the near future.

Flathead sole

Flathead sole in BSAI is managed as a Tier 3a stock (McGilliard et al. 2016). The harvest strategy and HCR have not changed from the program described in the Public Certification Report. The last full assessment was in 2014, and in 2016 projections with updated catch data were made using the assessment formulation accepted in 2014, with technical changes to improve weightings of some information sources relative to sample size. Spawning stock biomass has shown a recent gradual decline from high biomasses seen since the 1980s, as strong and above average year are becoming less frequent. However, the projected 2017 Spawning Biomass is 223,469 t, which is 173% of $B40_{\%}$.

The estimate of the 2017 ABC is 68,278 t, and the estimate of OFL is 81,652 t. The 2016 TAC was set at 21,000 t (31% of the ABC) and total catch was 9,353 t (14 % of the ABC and 44% of the TAC). No significant changes in fishery operations are expected in 2017 that would substantially alter the impact of the fishery on the resource. Because Flathead sole is not being subjected to overfishing, is not overfished, and is not approaching an overfished condition, no concerns with continued compliance with P1 criteria and benchmarks were found or are expected in the near future.

Arrowtooth flounder

Arrowtooth flounder in BSAI is managed as a Tier 3a stock (Wilderbuer et al 2016). The harvest strategy and HCR have not changed from the program described in the Public Certification Report. The last full assessment was in 2014, and in 2015 projections with updated catch data were made using the assessment formulation accepted in 2014. Several minor changes to the model formulation or treatment of data we made to better characterize the uncertainties in model projections, but none were expected to alter the estimates of stock trajectories significantly. Spawning stock biomass has shown an increase since the mid-1970s, with above average or strong year-classes occurring frequently and there was low total mortality. The projected 2017 Spawning Biomass is only slightly lower than 2016 SSB, and at 485.802 t, is 229% of B40%.

The estimate of the 2017 specified ABC is 65,371 t, and the estimate of OFL is 76,100 t. The 2016 TAC was set at 14,000 (17% of the ABC) and estimated total catch was 9,712 t, 69% of the TAC and 15% of the ABC. Arrowtooth flounder is not being subjected to overfishing, is not overfished, and is not approaching an overfished condition. Thus, there is compliance with P1 criteria and benchmarks for the present audit.

Alaska plaice

Alaska plaice in BSAI is primarily taken as bycatch in the yellowfin sole fishery, and is managed as a Tier 3a stock (Wilderbuer et al. 2016). The harvest strategy and HCR have not changed from the program described in the Public Certification Report. The last full assessment was in 2014, and in 2016 projections with updated catch data were made using the assessment formulation accepted in 2014 with all data series updated to 2016 values. Spawning stock biomass has been stable and high since the 1980s, but is expected to decrease slightly by the end of this decade, as several exceptionally strong and year-classes from the turn of the century pass through the population. However, the projected 2016 Spawning Biomass is 186,300 t, which is 168% of B40%.

The estimate of the 2017 ABC is 36,000 t, and the estimate of OFL is 42,800 t. The 2016 TAC was set at 14,500 t (40% of the ABC) and total catch was 13,452 t (37 % of the ABC and 93 % of the TAC). No significant changes in fishery operations are expected in 2017 that would substantially alter the impact of the fishery on the resource. Because Alaska plaice is not being subjected to overfishing, is not overfished, and is not approaching an overfished condition, no concerns with continued compliance with P1 criteria and benchmarks were found or are expected in the near future.

Northern rock sole

Northern sole in BSAI is managed as a Tier 1a stock, with most catches taken on a winter roe fishery (Wilderbuer et al 2016). The harvest strategy and HCR have not changed from the program described in the Public Certification Report. The 2015 assessment model has changed little from full assessments of the stock in the 2010s, and the 2016 assessment undated the input data series. Spawning stock biomass has increased over the past 10 years as several above average to strong year classes from the 2000s recruited to the stock, but is expected to begin to decline slightly as more recent recruiting year-classes are closer to the long-term average. The estimated 2017 SSB is 539,500 t, which is 208% of Bmsy.

The estimate of the 2017 ABC is 155,100 t, and the estimate of OFL is 159,700 t. The 2016 TAC was set at 57,100 t (45% of the 2016 ABC) and total catch was 45,800 t (29 % of the ABC and 80% of the TAC). No significant changes in fishery operations are expected in 2017 that would substantially alter the impact of the fishery on the resource. Because northern rock sole is not being subjected to overfishing, is not overfished, and is not approaching an overfished condition, no concerns with continued compliance with P1 criteria and benchmarks were found or are expected in the near future.

Kamchatka flounder

Kamchatka Flounder in BSAI is managed as a Tier 3a stock (Wilderbuer et al 2016). The harvest strategy and HCR have not changed from the program described in the Public Certification Report. The last full assessment was in 2014, and in 2016 was a full update with updated catch data using the assessment formulation accepted in 2014. Spawning stock biomass increased gradually but consistently from the start of the assessment period in 1991 until about 2009, and has been slightly variable without trend thereafter. The projected 2017 Spawning Biomass is 60,300 t, which is 118% of B40%.

The estimate of the 2017 ABC is 8,880 t, and the estimate of OFL is 10,360 t. The 2016 TAC was set at 6,500 t (58% of the 2016 ABC) and total catch was 4,533 t (47 % of the ABC and 70 % of the TAC). No significant changes in fishery operations are expected in 2017 that would substantially alter the impact of the fishery on the resource. Because Kamchatka flounder is not being subjected to overfishing, is not overfished, and is not approaching an overfished condition, no concerns with continued compliance with P1 criteria and benchmarks were found or are expected in the near future.

Principle 2

There was no information that led to concerns with compliance of P2 requirements based on the review of new information.

Retained species and bycatch

The composition and amount of retained species and the bycatch in the flatfish fisheries under certification, including marine mammals and seabirds, is collected by the North Pacific Groundfish and Halibut Observer Program operated by the NMFS. Once again, the flatfish fisheries had 200% observer coverage in 2016 (Alaska Fisheries Science Center and Alaska Regional Office 2017).

The catch levels of retained and bycatch species in 2016 were similar to the previous years. Considering all flatfish fisheries together, retained and bycatch species catches were lower than the previous two years (Mary Furuness, NMFS Alaska Regional Office, Catch Accounting System, 2017). Pollock and Pacific cod continued to dominate the catch of FMP-retained species in 2016. As a group the catch of skates in 2016 (1,974 t) was similar to that in the previous year (1,858 t) with Alaska skate the most frequently taken. The species composition and amounts of sculpins taken in the flatfish fisheries also differed little from the previous several years. The catch of Sleeper sharks increased to 7 t in 2016 from the 1-2 t in each of the previous three years, but similar to the 8 t taken in 2012.

At 4,949 t, the total bycatch on non-FMP species was the second lowest in the time series back to 2010 (Mary Furuness, NMFS Alaska Regional Office, Catch Accounting System, 2017). As in previous years, Giant grenadier, star fish, benthic urocordata and Scypho jellyfish were the major bycatch species. Across all MSC-certified flatfish species, the catches of prohibited species generally decreased. Across all MSC-certified flstfish species, the catches of prohibited species generally decreased. The halibut bycatch was 2,174 t compared to the average from 2010 to 2015 of 2,415 t. The herring bycatch increased to 60 t from 38 t in the previous year. The bycatches of both Bairdi and Opilio tanner crabs was down by more than 50% in 2016 compared with 2015. By contrast, the catches of Blue and Red king crab increased. The number of Chinook salmon increased to 6,492 in 2016 compared with an average of 1,297 from 2010-2015. Although there has been an increasing trend in the catch of Chinook in flatfish fisheries, the numbers taken are still relatively low. By contrast, the catch on non-Chinook salmon decreased to 2,133 t in 2016 from 3,166 t in 2015. The average bycatch of non-Chinook salmon for the period 2010 to 2015 was 1,645 t.

Seabirds

The most recent USF&W surveys on seabird population trends in Alaska Maritime National Wildlife Refuge monitored sites indicated that statewide, 27% of species showed increasing population trends, 60% were stable and 13% declined between 2006 and 2015 (Dragoo et al. 2016). Relatively few seabirds are taken in flatfish fisheries. Eich et al. (2016) report on seabird bycatch mitigation and bycatch trends in Alaskan fisheries during the period 2007 to 2015.

Seabird bycatch in groundfish fisheries in the Eastern Bering Sea has declined since 2007. However, there was an increase to 3992 in the bycatch of all groups (fulmars, shearwaters, gulls) in 2015, although still below the long-term average for the period 2007-2015 of 5249 birds (Zador and Siddon 2016). No short-tailed albatross and few black-footed albatrosses were caught, but more than the average number of Laysan albatross were caught incidentally in 2016 groundfish fisheries (Zador and Siddon 2016). This increase was still within the range observed between 2007 and 2014 (4 to 48 birds). During the period 1993-2017, no short-tailed albatrosses have been taken.

The number of seabirds estimated to be bycaught in Aleutian Islands groundfish fisheries in 2015 was 1,204, the highest in the time series which began in 2007. Over the period 2007 to 2014 groundfish fisheries took an average of 403 seabirds (Zador 2016). This follows four years (2011-2014) with relatively low numbers caught (average 173). The majority of those

estimated to be caught were Northern fulmars and Laysan albatross; the numbers of both species were the highest in the time series. In contrast, shearwaters, which were the most numerous species group bycaught in 2007, had the second lowest numbers caught in 2015.

NOAA through the AFSC is continuing research to obtain better estimates of seabird bycatch (unpublished). A NOAA team is working to put together a workshop to look at the problem of cryptic mortality especially regarding third and fourth wires. Preliminary information on the cryptic mortality from trawl vessels fishing for Pacific cod, and presumably other trawl fisheries, indicates that vessels operating in the Aleutians can have unobserved albatross mortality in the area overlapping the range of all three species. Cryptic mortality is not considered a conservation issue (S. Fitzgerald, personal communication), but incorporating such mortality will provide better estimates of seabird bycatch mortality.

In 2016, NOAA Fisheries formed an Alaska Groundfish and Halibut Seabird Working Group to serve as an advisory body to NOAA Fisheries and the USFWS to promote further reduction in the bycatch of Short-tailed albatross and other seabirds as prescribed in the USFWS 2015 Biological Opinion (USFWS 2015).

Marine mammals

Marine mammals are rarely taken incidentally in the BSAI flatfish fisheries. The BSAI trawl fisheries in 2017 continue to be classified as Category II (occasional interactions with marine mammals) (http://www.nmfs.noaa.gov/pr/interactions/fisheries/2017_list_of_fisheries_lof.html#table1_cat3). Comparison of species-specific estimates with the Potential Biological Removals (PBR) for each species indicates that interaction with the flatfish fishery is highly unlikely to cause serious harm.

Northern fur seals

Numbers of northern fur seal, *Callorhinus ursinus*, pups were estimated using a mark-recapture method on the Pribilof Islands during August 2016. An estimated 80,641 (SE = 717) pups were born on St. Paul Island and 20,490 (SE = 460) pups were born on St. George Island. The 2016 pup production estimate for St. Paul Island is 12.1% less than the estimate in 2014, whereas that for St. George Island is 8.2% greater than the estimate in 2014. Overall pup production for the Pribilof Islands decreased approximately 8.6% from 2014 to 2016. Estimated pup production on St. Paul has not been this low since before 1915 at which time the population was recovering from pelagic sealing at approximately 8% annually (https://www.afsc.noaa.gov/nmml/PDF/NFurSealPupMem2016_Final.pdf).

Some 27,750 (SE = 228) pups were born on Bogoslof Island in 2015, the most recent estimate for this colony. The 2015 pup production estimate for Bogoslof Island is 21.1% greater than the estimate in 2011. Since the first pup was observed on Bogoslof Island in 1980 pup production has increased at an annual rate of 33.7% (SE = 2.53) and at an annual rate of 10.1% (SE = 1.08) since 1997 (https://www.afsc.noaa.gov/nmml/PDF/BogPupMem15_final.pdf). It is not known if the recent volcanic eruptions on Bogoslof (both in 2016 and 2017) have negatively affected the pup production or pre-weaning mortality rate at this colony.

Steller sea lions

The latest survey conducted in 2016 showed that for the western distinct population segment (DPS) in Alaska, non-pup counts increased at 2.2% per year between 2003 and 2016, nearly identical to the estimate for the 2003-2015 period (https://www.afsc.noaa.gov/NMML/PDF/SSL_Aerial_Survey_2016.pdf). Pup counts also

increased at 2.2% per year between 2003 and 2016, down slightly from the 2.3% per year estimated for 2003-2015 (Fritz et al. 2016).

The regional patterns of western DPS count trends, for both pups and non-pups, are similar to those described in previous years' assessments: generally decreasing counts west of Samalga Pass and increasing counts to the east. The longer-term tends in the western Aleutians since 2003 showed a decline of ~7% per year in both pups and non-pups. However, in both age classes, there has been little change in numbers since 2014 (https://www.afsc.noaa.gov/NMML/PDF/SSL_Aerial_Survey_2016.pdf).

AFSC researchers continue to pursue studies to determine which life history traits (age-specific reproductive or survival rates) are implicated in the regional dynamics of both species and to better understand the links between forging behaviour, diets and dynamics. Once completed these studies may provide new insight into the factors underlying recent population trends.

Habitat

On January 9, 2015, NMFS announced the approval of Amendment 104 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area which designates as HAPC six areas in the eastern Bering Sea where relatively high concentrations of skate eggs occur for several skate species (family *Rajidae*).

Over the past several years some two dozen research projects have been initiated by NMFS staff to better understand various aspects of Essential Fish Habitat (EFH)(http://www.afsc.noaa.gov/HEPR/docs/EFH%20Research%20Projects%202016.pdf).

The most recent 5-year review of EFH took place in 2016 using a new Fishing Effects (FE) model to assess the impacts of fishing activities on EFH. This model replaces the previously-used Long-term Effects Index (LEI) model. Using this new model over the period 2003 to 2016, provided estimates of between 3.0% and 6.7% of flatfishEFH impacted by flatfish fisheries in the BS (http://www.npfmc.org/wp-content/PDFdocuments/conservation_issues/EFH/EFH_FE_output_BS_locked.xlsx) and between 1.3% and 2.4% in the Aleutian Island MSC-certified flatfish fisheries (http://www.npfmc.org/wp-content/PDFdocuments/conservation_issues/EFH/EFH_FE_output_AI_locked.xlsx).

In April 2017, based on the analysis with the FE model, the Council concurred with the Plan Team consensus that the effects of fishing on EFH do not currently meet the threshold of more than minimal and not temporary, and mitigation action is not needed at this time (NPFMC\NMFS 2017).

Ecosystem

The NPFMC released an ecosystem approach and vision statement in February 2014 which was meant to guide NPFMC actions in all fisheries. At the December 2015 meeting, the Council initiated the development of the Bering Sea Fishery Ecosystem Plan (FEP). In December 2016, the Council appointed 12 people to a Council Bering Sea Fishery Ecosystem Plan Team, to begin developing the Council's Bering Sea Fishery Ecosystem Plan (FEP). The Team's primary responsibilities are to develop the core FEP document, to discuss potential and ongoing FEP action modules, make recommendations to the Ecosystem Committee and the Council. In September 2107, the plan team met to review draft text of some chapters of the plan and develop content of remaining chapters (https://www.npfmc.org/bsfep/).

Zador and Siddon (2016) presented updated information on the state of the BS ecosystem. The eastern BS was characterized by warm conditions that began in late 2013. The PDO remained positive. Jellyfish abundances declined 79% from 2015 to 2016 to one of the lowest observed levels since 1989. Survey biomass of motile epifauna has been above its long-term mean while benthic and pelagic foragers have returned to near average levels in 2016. Fish apex predator survey biomass is currently above its 30-year mean, driven primarily by increases in Pacific cod.

In the AI ecosystem, the PDO remained positive and, like the eastern BS, water temperatures were warm. The biomass of pelagic forager and apex fish predator foraging guilds decreased across the region between the 2014 and 2016 surveys, although patterns varied among species. The overall decrease may indicate a response to the warmer water or reflect high variances commonly observed in estimated biomass among survey years. The largest total biomass of both apex predators and pelagic foragers was found in the central Aleutian Islands (Zador 2016).

There were no substantial ecosystem changes that would affect the MSC certification of the flatfish fisheries.

2.6. Any developments or changes within the fishery which impact traceability or the ability to segregate between fish from the Unit of Certification (UoC) and fish from outside the UoC (non-certified fish)

The fishery continues with high quality catch reporting through industry submissions and at-sea observers, and with rigorous monitoring. No changes have occurred that would impact traceability.

2.7. Conditions

The fisheries had no conditions.

2.8. Recommendations

The fisheries had no recommendations.

3. Assessment Process

The surveillance audit process as defined in the MSC Fishery Certification Requirements v2.0 was followed in this audit.

The Bering Sea-Aleutian Islands flatfish fisheries have completed re-assessment, and this is the second surveillance of the re-assessment. Information for Alaska federally-managed fisheries is readily available on line from the National Marine Fisheries Service (NMFS) Alaska Regional Office https://alaskafisheries.noaa.gov/ and Alaska Fishery Science Center http://www.afsc.noaa.gov/ and the North Pacific Fishery Management Council (NPFMC) http://www.npfmc.org/. The MRAG Americas surveillance team received from the client a list of relevant links to documents for P1, P2, and P3. The client further provided a summary of the key information from those documents. The Public Certification Report used 2013 and 2014 data depending on availability. This surveillance uses 2015 and 2016 data, depending on availability, and uses management changes implemented through August 2017. NMFS

Stock Assessment and Fishery Evaluation (SAFE) reports become available in November each year with annual or biennial stock assessments for each species using partial data for the current year.

The MRAG Americas surveillance team read the original documents provided by the client to:

- Audit public claims made by the client regarding its certified status (including but not restricted to those made on printed material such as brochures).
- Review any potential or actual changes in management systems.
- Review any changes or additions/deletions to regulations.
- Review any personnel changes in science, management or industry to evaluate impact on the management of the fishery.
- Review any potential changes to the scientific base of information, including stock assessments.
- Evaluate progress against any conditions placed on the certificate, as well as for continued compliance with the *MSC's Principles and Criteria for Sustainable Fishing* as specified in the Public Certification Report.

The surveillance team has the responsibility, if it identifies an issue requiring further investigation, to:

- Report and record the existence of the issue, and/or
- Immediately conduct a limited assessment to determine if a full re-assessment of the fishery is warranted to continue the certification status, and/or
- Raise further conditions.

The assessment team used MSC Standards Version 1.1; MSC Certification Requirements Version 1.3; MSC Guidance for Certification Requirements Version 1.3; and MSC Process Certification Requirements Version 2.0.

Thirty days prior to the surveillance audit, all stakeholders from the full assessment and previous surveillance audits were informed of the meeting and the opportunity to provide information to the auditors in advance of, or during, the meeting. We received no requests from outside stakeholders to take part in the meeting or provide information remotely.

The surveillance audit was conducted remotely by teleconference during the week of 20-24 October 2017.

The following participants were in attendance:

Name	Affiliation
Bob Trumble	MRAG Americas assessment team
Don Bowen	MRAG Americas assessment team
Jake Rice	MRAG Americas assessment team
Anne Hollowed	NMFS AFSC
Grant Thompson	NMFS AFSC
Jonathan Heifetz	NMFS AFSC
Steve Barbeaux	NMFS AFSC
Doug DeMaster	NMFS AFSC
Jeremy Sterling	NMFS AFSC
Tom Gellatt	NMFS AFSC
Robyn Angliss	NMFS AFSC
Shannon Fitzgerald	NMFS AFSC
Diana Evans	NPFMC
Nathan Lagerwey	OLE

Name	Affiliation
Austin Estabrooks	APA
Christopher Oliver	ASC
Mark Fina	ASC
Dave Gaudet	AFDF
Ruth Christianson	UCB
Julie Bonney	Groundfish Data Bank

The table below summarizes the agenda for the meetings, held via conference calls in Oct 2017.

Date	Item	Lead	Supporting documents
10/16	Stock assessment	Jake Rice	SAFE Documents
10/16	Client meeting	Bob Trumble	Client summaries
10/18	Marine mammals	Don Bowen	Marine mammal stock assessment, aerial surveys
10/18	Observers	Bob Trumble	Observer Program Annual Report
10/19	Enforcement	Bob Trumble	Personal communication
10/20	Sea birds	Don Bowen	Seabird bycatch and mitigation report

Standards and Guidelines used:
MSC Certification Requirements version 2.0 (for process requirements)
MSC Certification Requirements version 1.3 (for performance requirements, including assessment tree)
Guidance to the MSC Certification Requirements version 2.0 (for process requirements)
Guidance to the MSC Certification Requirements version 1.3 (for performance requirements, including assessment tree)
MSC Surveillance Reporting Template version 1.0

4. Results

The fisheries have no Conditions or Recommendations.

5. Conclusion

MRAG Americas confirms that the Alaska Flatfish Fishery – Bering Sea-Aleutian Islands remains certified following the completion of this surveillance. No changes in the fishery occurred that would result in a change to the surveillance schedule.

6. References

Alaska Fisheries Science Center and Alaska Regional Office. 2017. North Pacific Observer Program 2016 Annual Report. AFSC Processed Rep. 2017-07, 143 p. Alaska Fish. Sci. Cent., NOAA, Natl. Mar. Fish. Serv., 7600 Sand Point Way NE, Seattle WA 98115.

Dragoo, D. E., H. M. Renner, and R. S. A. Kaler. 2016. Breeding status and population trends of seabirds in Alaska, 2015. U.S. Fish and Wildlife Service Report AMNWR 2016/03. Homer, Alaska.

Eich, A.M., K.R. Mabry, S.K. Wright, and S.M. Fitzgerald. 2016. Seabird Bycatch and Mitigation Efforts in Alaska Fisheries Summary Report: 2007 through 2015. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/AKR-12, 47p

Fritz, L., K. Sweeney, R. Towell, and T. Gelatt. 2016. Aerial and ship-based surveys of Steller sea lions (*Eumetopias jubatus*) conducted in Alaska in June-July 2013 through 2015, and an update on the status and trend of the western distinct population segment in Alaska. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-321, 72 pNPFMC\

McGilliard, C.R., Nichol, D.G.2, and Palsson, W. 2016. Assessment of the Flathead Sole-Bering flounder Stock in the Bering Sea and Aleutian Islands. Alaska Fisheries Science Center https://www.afsc.noaa.gov/REFM/Docs/2016/BSAIflathead.pdf.

NMFS 2015. 2015 North Pacific Groundfish Stock Assessment and Fishery Evaluation Reports for 2016 Fisheries

NMFS 2016. 2016 North Pacific Groundfish Stock Assessment and Fishery Evaluation Reports for 2017 Fisheries

NMFS 2017. Final EFH 5-year Review Summary Report, July 2017USFWS 2015. Biological Opinion - For the Effects of the Fishery Management Plans for the Gulf of Alaska and Bering Sea/Aleutian Islands Groundfish Fisheries and the State of Alaska Parallel Groundfish Fisheries. Consultation # 07CAAN00-2015-F-014

USFWS 2015. Biological Opinion - For the Effects of the Fishery Management Plans for the Gulf of Alaska and Bering Sea/Aleutian Islands Groundfish Fisheries and the State of Alaska Parallel Groundfish Fisheries. Consultation # 07CAAN00-2015-F-014

Wilderbuer, T.K., and Nichol, D.G.,2016. Assessment of the Northern Rock Sole stock in the Bering Sea and Aleutian Islands. Alaska fisheries Science Center. https://www.afsc.noaa.gov/REFM/Docs/2016/BSAIrocksole.pdf.

Wilderbuer, T.K., Nichol, D.G., and Ianelli, J. 2016 Assessment of the yellowfin sole stock in the Bering Sea and Aleutian Islands. Alaska Fisheries Science Center. https://www.afsc.noaa.gov/REFM/Docs/2016/BSAIyfin.pdf.

Wilderbuer, T.K., Nichol, D.G., and Spencer, P.D. 2016. Assessment of the Alaska Plaice stock in the Bering Sea and Aleutian Islands. Alaska Fisheries Science Center. https://www.afsc.noaa.gov/REFM/Docs/2016/BSAIplaice.pdf

Wilderbuer, T.K., Nichol, D.G., Hoff, J. and Palsson, W. 2016. Assessment of the arrowtooth flounder stock in the Eastern Bering Sea and Aleutian Islands. Alaska Fisheries Science Center. https://www.afsc.noaa.gov/REFM/Docs/2016/BSAIatf.pdf.

Wilderbuer, T.K., Ianelli, J., Nichol D.G and Lauth, R. 2016. Assessment of the Kamchatka Flounder stock in the Bering Sea and Aleutian Islands. Alaska Fisheries Science Center. https://www.afsc.noaa.gov/REFM/Docs/2016/BSAIkamchatka.pdf

Zador, S., ed. 2015. Ecosystem Considerations 2015. Status of Alaska's Marine Ecosystems. North Pacific Fishery Management Council, Anchorage, AK, pp. 296. https://www.afsc.noaa.gov/REFM/Docs/2015/ecosystem.pdf

Zador, S. [ed.] 2016. Ecosystem considerations 2016 status of the Aleutian Islands marine ecosystem North Pacific Fishery Management Council, Anchorage, AK, pp. 110.

Zador, S. and E. Siddon. [ed.] 2016. Ecosystem considerations 2016 status of the Eastern Bering Sea marine ecosystem. North Pacific Fishery Management Council, Anchorage, AK, pp. 210.

Appendices

Appendix 1. Rescoring evaluation tables

No rescoring of performance indicators occurred.

Appendix 2. Stakeholder submissions

No written or verbal stakeholder submissions were received.

Appendix 3. Surveillance audit information

N/A

Appendix 4. Additional detail on conditions/actions/results

N/A

Appendix 5. Revised surveillance program

N/A