

Ecosystem Socioeconomic Profile (ESP) Update

ESP Definition: A standardized framework that facilitates the integration of ecosystem and socioeconomic factors within the stock assessment process and acts as a proving ground for use in management advice.



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FISHERIES

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ESP Update Overview

- Workshop
 - Advice workshop, March 15-17, 2021
 - Final follow up one-day session with PEEC in May
- ESP Operations
 - Annual schedule and reporting templates finalized
 - Request for indicators (RFI) and ESP indicator submission tool developed (through AKFIN)
 - ESP teams and contributors roles defined
 - National ESP Initiative

Workshop Organization

<p>Data (2019)</p>	<p>ESP Process</p> 	<p>Collect</p> 	<p>Coordinate</p> 	<p>Create</p> 
<p>Model (2020)</p>	<p>Review</p> 	<p>Discuss</p> 	<p>Perform</p> 	<p>Improve</p> 
<p>Advice (2021)</p>	<p>Review</p> 	<p>Forecast</p> 	<p>Evaluate</p> 	<p>Provide</p> 

Data Workshop

**Pacific Marine Environmental Laboratory
EcoFOCI**

Lead: Michelle Koblitz

Members: Nick Bond, Neil Collins, Carol Long, David Leland, Colin Sturdy, Paul Trivette, Peggy Whitton, Peter Zedler

PMEL EcoFOCI JVAO

Ecosystems & Fisheries-Oceanography Coordinated Investigations (EcoFOCI)

On-Station AFSC - the Recruitment Process Program

Supervisors: Janet Dally-Anderson (PM), Lilyly Loggnerill

Employees: Ali Daulton, Lauren Rogers, Dave Kinnison, Matt Wilkins, Heather Foster, Ashley Spore, Melissa Pappas, Morgan Busby, Dana Cooper, Colleen Berglund, Ivona Leland, Kaitly Mar, Kimberly Daulton, Amanda Thomsen

Post-Doctoral Researchers: Eddler Guldholm, Ross Nashum

Ecosystem Monitoring and Assessment (EMA)

Anuke Bay Labs Division

Supervisors: Ed Farley (PM), Andy Coker (BO)

Employees: Alex Anderson, Andrew Blomard, Charles Waters, Elizabeth Sullivan, Ellen Yonemitsu, Kristin Casard, Lisa Enner, Anna Mann, Heather Green, Jan Murphy, John Ecker, Jordan Wynn, Scott Valarik, West Newburg

Recruitment, Energetics, and Coastal Assessment (RECA)

Supervisors: Todd Miller, Mandy Lindberg (acting)

Employees: Emily Ferguson, Corey Fagatz, Larry Holland, Jacob Maschke, Mikela Masuda, Katherine Miller, John Moran, Matthew Rogers, Fletcher Sewall, Rob Suryan, Johanna Vollenweider

Science Support: Bryan Connock, Taylor Jarvis, Darice Nell, Holly Schultz, Auburn Braverman, Courtney Sheas, Spencer Landa

The FBEP science team in Newport, OR

Midwater Assessment and Conservation Engineering (MACE)

Supervisors: Chris Wilson, Patrick Reader

Employees: Alex De Robertis, Scott Rumbolt, Taina Henshokko, Devin Jones, Nathan Laufenberger, Mike Levine, Abigail McCarthy, Denise Mikulsky, Sarah Stameshan, Rick Towler, Freonie Williams, Rosalie Yachum

Shellfish Assessment Program

Former supervisor: Robert Foy

NOAA employees: Dan Urban, Leah Zacher, Pam Jensen, Alie Conrad, Jennifer Gardner, Erin Fedewa, Jon Richter and Chris Long

Contractors: Connor Cleary, Swilgard Duesterloh and Kelly Champagne

Groundfish Assessment Program

Program Lead: Stan Kobacki Supervisors: Beth Leath, Wayne Pfaffson

Employees: Laura Bennett, Lisa Bell, Jennifer Brinkman, Cheyenne Carlson, Christine Coleman, Rebecca Gagne, Sara Hill, Steve Hoffman, Filipe Jorgensen, Heather Jenkins, Bob Luchessa, Bob Luchessa, Dan Miller, Dan Miller, Mike Perry, Nancy Peterson, Heidi Rasmussen, Bruce Rye, Darrin Salsman, Steven Sargent, Paul Van Geest, Cynthia Wang, Mark Zimmerman

Age and Growth Program

Supervisors: Tom Heiser and Orla Andri

AFSC REFM

Employees: Jina Benson, John Dragan, Chris Gherini, Betty Goetz, Charles Hutchinson, Craig Katsile, Beth Matta, Dustin Neidrick, Sandi Neidrick, Julie Pearce, Charlie Pitzer, Joe Short, Kai Stone, Todd Terhark

ESP Workshop May 2019 Presented by Beth Matta AFSC Age and Growth Program

REEM: Resource Ecology and Ecosystem Modeling Program

Products

- Adult groundfish-food habits data and indices POC: K. Aylen
- Model-based estimates of predation POC: K. Aylen, K. Holsinger

Fisheries data collection by the AFSC

Alaska Fisheries Science Center

May 2019

ESIP Workshop for Alaska Fisheries and Ecosystem Modeling Program

Fisheries Monitoring and Analysis

Status of Stocks and Multispecies Assessment (SSMA)

Supervisors: Steve Barham, Susie Lora

Employees: Steve Barham, Douglas Brown, Martin Davis, Jim Daniels, Cory McLaughlin, Ellen Orvosh, Nigel Ryan, Pam Spurgeon, Russ Swadlow, Cindy Swadlow, Leah Thompson

Postdoctoral Researcher: A. Barco, C. Menezes, C. Tupper, F. Wadsworth

Marine Ecology and Stock Assessment (MESA)

Division: Anake Bay Laboratories

Supervisors: Chris Leonard, Pat Madhala

Employees: Katy Lebowy, Kari Louko, Dana Hunschman, Pete Halverson, Cara Rongstad, Kateri Swadlow, Kevin Savelle, Cindy Johnson

The ESSRP team

Seabird Data: Possible Contributions

William Sydeman, Mayumi Arimitsu, Heather Renner, Sarah Ann Thompson, John Platt, Scott Hatch, Rob Suryan, Stephani Zador

Regional Office Fisheries Data

Presented by Anne Marie Eich Sustainable Fisheries Division

<https://www.fisheries.noaa.gov/alaska/alaska-regional-office>

Westward Region Large-Mesh Bottom Trawl Surveys

Kelly Spangler 20 Research Lane Hobbs, AK 99530 kelly.spangler@noaa.gov

The IPHC Fishery Independent Setline Survey

International Pacific Halibut Commission (<https://www.iphc.int/>)

Essential Fish Habitat Species Distribution Models and Ecosystem Socioeconomic Profiles

Jodi Pirtle Alaska Regional Office Habitat Conservation Division Juneau, Alaska Jodi.Pirtle@noaa.gov

ESP Workshop NOAA AFSC May 31, 2019

Habitat and Ecosystem Process Research Program

James Thorson

Core team: Mike Cameron, Phil Ganz, Tom Hurst, Mandy Lindenberg, Beth Matta

Model Workshop

Oceanographic models

Ecological and Oceanographic Process (EOP) models, workshop
 Jeff Korman & Dennis Fisher
 University of Washington, 2020
 AFSC AFSC, 2020
 March 11, 2020

**Applications of Individual-based models (IBMs):
 Early life stage survival & recruitment**

Esther Goldstein & Buck Stockhausen
 EOPDC & REEM
 AFSC, Seattle

fishshop 2020
 NOAA FISHERIES | ALASKA FISHERIES SCIENCE CENTER
 AFSC AFSC, 2020

REEM: Resource Ecology and Ecosystem Modeling Program

Products

- Adult groundfish food habits data and indices
- Model-based estimates of consumption and predation

**Species Distribution Modeling (SDM)
 to Describe
 Essential Fish Habitat (EFH)
 in Alaska**

11 March, 2020
 Seattle, WA

NOAA FISHERIES SERVICE

Neil Laman, Joel Poffe, Jeremy Harris, Chris Reeper, Thomas Hurst, and Christina Conrath
 National Marine Fisheries Service (NMFS)
 Alaska Fisheries Science Center (AFSC)
 National Assessment and Conservation Engineering Division (NACE)
 Groundfish Assessment Program (GAP)

**Species Distribution Models:
 Temporal Changes in Spatial Indicators**

Lewis Barnett and Jim Thorson
 ESP Workshop
 3/11/2020

www.barnett@noaa.gov
 jthorson@noaa.gov

Biological metrics for ESPs; early life history considerations and applications

NOAA FISHERIES

Ben Leland, Jeff Korman, Alan Hays, Alan Rogers, Alan C. Haynie
 AFSC AFSC, 2020

Using ecosystem data and mechanistic understanding to inform management

Lauren Rogers
 RACE/ESP/DC

With contributions from:
 Ellen Truesdell, Lisa Carter, Ben Leland, Dan Cooper, Suzanne McInerney

ESP Workshop
 March 11, 2020

EOPDC

**Socioeconomic Aspects in Stock Assessments Workshop (SEASAW):
 Past, Present, and Future**

NOAA FISHERIES
 Alaska Fisheries Science Center
 Seattle, WA

Alan C. Haynie
 ESP
 AFSC, March 10, 2020

Disclaimer:
 This is the opinion of the authors and not NOAA, DCC, or the Nation.

**A Conceptual Model for
 Social and Economic Indicators**

ESP Workshop
 March 11th 2020

Ben Fissel
 AFSC – ESSRP

**Sablefish Case Study:
 Fleet Performance Indicator**

NOAA FISHERIES
 Alaska Fisheries Science Center

Marlyssa Szymkowiak
 NMFS Alaska Fisheries Science Center
 Presentation for ESP 2020

Indicator Analysis Stages

- Simple scoring of indicator suite in addition to traffic light (SSC)
- Importance methods to weight indicators by relevance to process
- Summary output of research ecosystem model

Methods for Estimating Indicator Importance

Curry Cunningham
 University of AK Fairbanks
 College of Fisheries and Ocean Sciences
 Kaiti Stobbe
 NOAA AFSC

CFOS

Enhanced Stock Assessment Models

Meaghan Bryan and Carey McGilliard

**CEATTLE:
 Climate enhanced Age-based model
 with Temperature specific Trophic linkages & Energetics**

Kristin Holman
 kristin.holman@noaa.gov

CEATTLE development team (alphabetical):
 Grant Adams, Karen Aydin, Steve Barbraux,
 Martin Durr, Jim Farrell, Assad Furt, Katie
 Shedd, Ingrid Spies, Grant Thompson

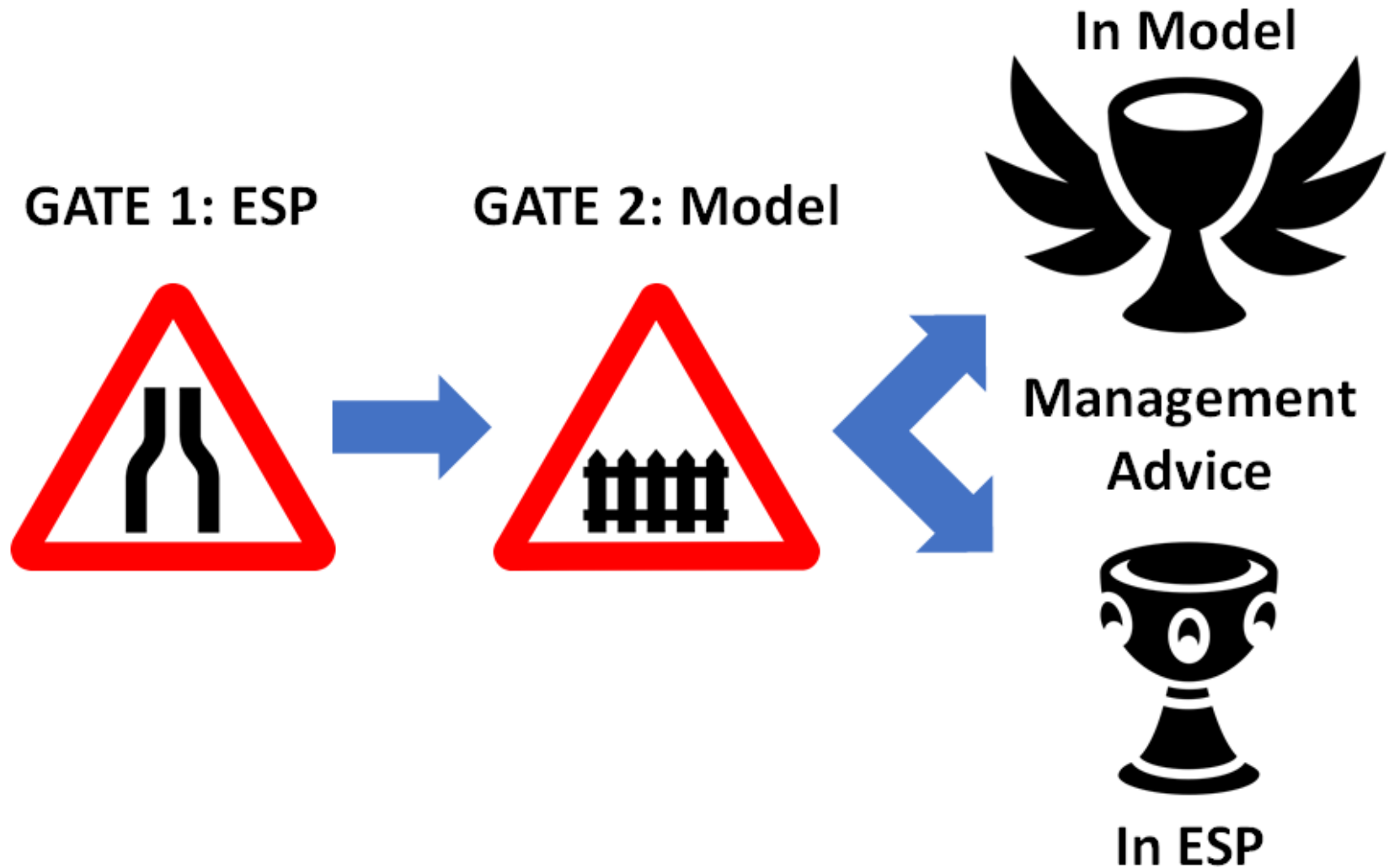
Multi-area models

Kari Fenske, Nick Tolimieri, Dana Hanselman, Kalei Shotwell

ESP workshop, March 2020

Discussion sessions were limited because of COVID-19

Model Discussion Workshop



Advice Workshop

BSAI Crab Ecosystem and Socioeconomic Profiles

Eann Pedawa, AFSC Shellfish Assessment Program
ESP Team: TBD

Ecosystem Socioeconomic Profile (ESP) Data Accessibility

Review data needs of ESPs, project with AKRN for data submission, update on ESP dashboard, review of web services for accessing data

Jordan Watson, Camille Kohler, Matt Callahan, Robert Ryman, Kaleb Shotwell

Northeast Ecosystem & Socioeconomic Profiles

Ricky Tabandera, Abby Tyrell, Scott Large
Ecosystem Dynamics & Assessment Branch
Northeast Fisheries Science Center

Fisheries Dependent Data Review
Reviews for Interacting with ESP Workshop

March 2021

Erin Thomas and Peter Drost

RPA Strategic Plan 2021-2026

NOAA AFSC / EcoFOCI, EMA, RECA
NOAA / PMEL EcoFOCI

ESP Workshop
March 2021

Spring PEEC meeting
Preview of Ecosystem and Economic Conditions

May 18-20, 2021
(virtually)

Gulf Watch Alaska
A Brief Recap & Looking Ahead

Rob Suryan & Mandy Lindberg

AFSC/AKRO Collaboration
(part of NMFS EBFM Roadmap activities)

Indicator on-ramps: Regional Ocean Models

Kelly Kearney, Ali Herrmann, Wei Cheng, Noone Ortiz, Kerim Aydin
University of Washington, NOAA PMEL, NOAA OOI

3rd Ecosystem and Socioeconomic Profile (ESP) Workshop

Ecosystem indicators – where we're at and where we're going

Lauren Rogers, Alison Deary, Ben Laurel
AFSC RACE Division (EcoFOCI, FBE)

ESP Advice Workshop, March 16 2021

Condition Indicators

Tom Decker
Tom Decker
Central Science
Climate Services

Indicator On-Ramps: Fishery Performance

Martin Dorn
Daniel Goethel

Third ESP Workshop
March 16, 2021

Socioeconomics in the ESP

Ben Frazar, Brian Garber-Horns, and Sarah White
March 16, 2021

Session 3 "projection" models

Matthieu Veron, Jim Ianelli, Martin Dorn

Ecosystem-linked Gulf of Alaska Pacific cod assessment

STEVEN J BARBEAUX
March 16, 2021

Multispecies models

Erin Holman & Ann Roppe
ESP 2021

Risk Table and ESR/ESP coordination

Stephanie Zador
ESP-Workshop #3
15-17 March 2021

Rebuilding and TAC considerations from the 'crab world'

KATIE PALCO, ADF&G, CPT CO-CHAIR
@KATIEPALCO
@ADFANDG
@CPTCOCHAIR

Conceptual and network models to inform possible effects of management actions and climate change on Pribilof Island blue king crab

Jon Reum¹, P. Sean McDonald², Kirstin Holman¹, Chris Long¹, Janet Armstrong², David Armstrong²

¹NOAA-AFSC
²University of Washington
Jonathan.Reum@noaa.gov


Adaptive Behaviors to Marine Ecosystem Shifts: Examining Fishermen's Strategies in Response to Abundant Juvenile Sablefish (*Anoplopoma fimbria*) in Alaska

Marysia Szymkowiak and Melissa Rhodes-Reese

Well-being

Final ESP Follow Up

- Reviewed survey of outstanding questions from March workshop
- Developed annual ESP schedule and request for indicators (RFI)
- Discussed ESP priorities, roles of teams and contributors
- Reviewed data accessibility survey, live demo of ESP submission tool
- Discussed ESP gates, credit, motivation, and opportunities to coordinate with PEEC meeting



Third Ecosystem and Socioeconomic Profile (ESP) Workshop Survey

The purpose of this form is to gather feedback on the third ESP workshop, the Advice Workshop conducted in March 15-17, 2021.

Questions in the first section of the form are designed to give workshop participants a way to provide input on the workshop discussion sessions. We know the remote nature of the workshops has limited active participation and we would like to hear your thoughts. The questions will also help us design the one-day ESP follow up workshop on Friday, May 21, 2021.

An additional data accessibility section follows the first section to help with developing the ESP data submission tool and streamlining data access and reproducibility. Please fill this section out if you plan to provide an indicator for the ESPs or if you are a stock assessment author.

* Required

Email *

Your email



Workshop Summary

1. Workshops (data, model, advice) served to bring programs/agencies together under the central focus of the ESPs and allowed for streamlining the ESP process to the priorities of the AFSC
2. ~ 80-100 participants per workshop includes all AFSC programs, other science centers, HQ, AKRO, Council, universities, other agencies
3. Integrated the ESPs into operations at the AFSC and provided the building blocks for initializing ESPs at other science centers

Workshop Pulse

stupendous oneafsc clap :()
😊 forwardthinking progress
teamwork 🐟 connections 😍
✉ fantasticfantasticfantastic
wellorganized

ESP Schedule & Reports

- ESP Schedule
 - Begins with request for indicators (RFI) in January
 - Separated from fall stock assessments and coordinated with ESR indicator requests
- ESP Reports
 - Full template completed when ESP initiated, ~5 years
 - Partial template is reduced and based on SAFE format, potentially initiated for a “red flag” response
 - Report card template is simple and for annual update

C = Crab, G = Groundfish

ESP Timeline

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ESP	Request for Indicators		ESP Teams		C-ESP Review	CG-ESP Review		CG-Report Card Request		G-ESP Review		
ESR					PEEC			Request & Receive Indicators, CG-Risk Tables			ESR Review	
Surveys			Spring Surveys			Summer Surveys		Fall Surveys				
Models	C-New Model			ROMS/ NPZ	C-New Model			ROMS/ NPZ	G-New Model			ROMS/ NPZ
Reports				Econ Final	C-ESP Final	G-ESP Draft			C-SAFE G-ESP Final		G-SAFE ESR Final	
Meetings	C-Plan Team	Council		Council	C-Plan Team	Council			CGPlan Team	Council	G-Plan Team	Council

C = Crab, G = Groundfish

ESP Timeline

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ESP	Request for Indicators		ESP Teams		C-ESP Review	CG-ESP Review		CG-Report Card Request		G-ESP Review		

ESP Request



Jan-Feb:

- RFIs released first week Jan
- Indicators due first week Feb
- ESP teams meet and review submitted indicators in Feb
- Indicator decision last week Feb

Mar-Apr:

- ESP teams meet ~monthly
- Create draft ESPs with submitted indicators if full
- Decide if create partial ESP
- Indicator data updated to 12/31 of previous year

May-Jun:

- C-ESP's due to C-Plan Team in May
- Spring PEEC coordinated with ESP update meeting in May
- C-ESP and draft G-ESP review by SSC in June

Aug-Sep:

- G-ESP's teams meet to finalize G-ESP's in Aug
- C-current year data request late Aug, due Sep 1
- G-ESP's due to G-Plan Team in Sep
- C-report cards due in Sep

Oct-Dec:

- G-current year data request late Sep, due Oct 1
- C-ESP's recommended by C-Plan Team or SSC by Oct
- G-report cards due in Nov
- G-ESP's recommended by G-Plan Team or SSC by Dec
- CG-ESP teams meet to create RFIs for recommended ESPs

Reports				Econ Final	C-ESP Final	G-ESP Draft			C-SAFE G-ESP Final		G-SAFE ESR Final	
Meetings	C-Plan Team	Council		Council	C-Plan Team	Council			CGPlan Team	Council	G-Plan Team	Council

Request for Indicators (RFI)

Request Jan, Review Feb

- 1) Description: process, cycle
- 2) Request: stock ecosystem and socioeconomic needs
- 3) Contributions: data fields and submission instructions
- 4) Review and Responsibilities: teams & contributor roles, use and credit

Request for Indicators: Ecosystem and Socioeconomic Profile of the Myfish stock in the Myarea

[List of ESP team who wrote the RFI request]

[Current Year]

[Picture of stock, if desired]

Description of Process

Short description of ESP process and justification for conducting the Request for Indicators for this stock (this will likely be consistent text for all RFIs)

Reference to Plan Team and SSC Recommendations, author request, and/or research priorities to conduct an ESP for this stock

Table of stepwise plan and cycle for review of indicator submissions in response to this RFI

Initial Recommendation	December [year]
Request Opening	First Week of January [year]
Proposed Indicators Due	First Week of February [year]
Notification of Selected Indicators	Last Week of February [year]

Stock Request

Description of main ecosystem and socioeconomic indicator needs for recommended ESP

Ecosystem Processes

- Summary of ecosystem processes that identify dominant pressures on the stock, evaluate by life history stage where possible
- Include conceptual model if available
- List of needed indicators based on dominant drivers

Socioeconomic Processes

- Summary of socioeconomic processes that identify dominant pressures on the stock, evaluate by life history stage where possible
- Include conceptual model if available
- List of needed indicators based on dominant drivers

RFI Document

Stock/Complex:

Outline for Request for Indicators (RFI)

Description of Process

- Short description of the ESPs and need for the RFI process
- Reference to Plan Team and SSC Recommendations to conduct ESP
- List of ESP team members for RFI review
- Table of stepwise plan and cycle for RFI review

Stock Request

Description of main ecosystem and socioeconomic indicator needs for ESP

Ecosystem Processes

- Summary of ecosystem processes that identify dominant pressures on the stock, evaluate by life history stage where possible
- List of needed indicators based on dominant drivers

Socioeconomic Processes

- Summary of socioeconomic processes that identify dominant pressures on the stock, evaluate by life history stage where possible
- List of needed indicators based on dominant drivers

Contributions

General requirements for indicator contributions responding to the request

Data Fields

- List of required metadata for contribution entry
- Description of indicator, status and trends, relevance to stock
- Criteria met for either ESP Gate 1 or Gate 2 (checkbox, references)

Data Submission

- Upload data fields and indicator data to AKFIN submission tool
- Review indicator data and resolve any validation conflicts
- Submit by specified due dates (initial and current year update)

Review and Responsibilities

Description of the review process by the ESP team, how the data will be used in the ESP, acknowledgement for use, and responsibilities

Team Review

- Evaluation of evidence that the indicator met the criteria specified
- Evaluation of completeness and timeliness of contribution

Use and Credit

- Data will only be used for the intended ESP and can be made available to the public if approved by the contributor
- Depending on level of contribution, credit is through acknowledgement as contributor or authorship of the ESP report

Responsibilities

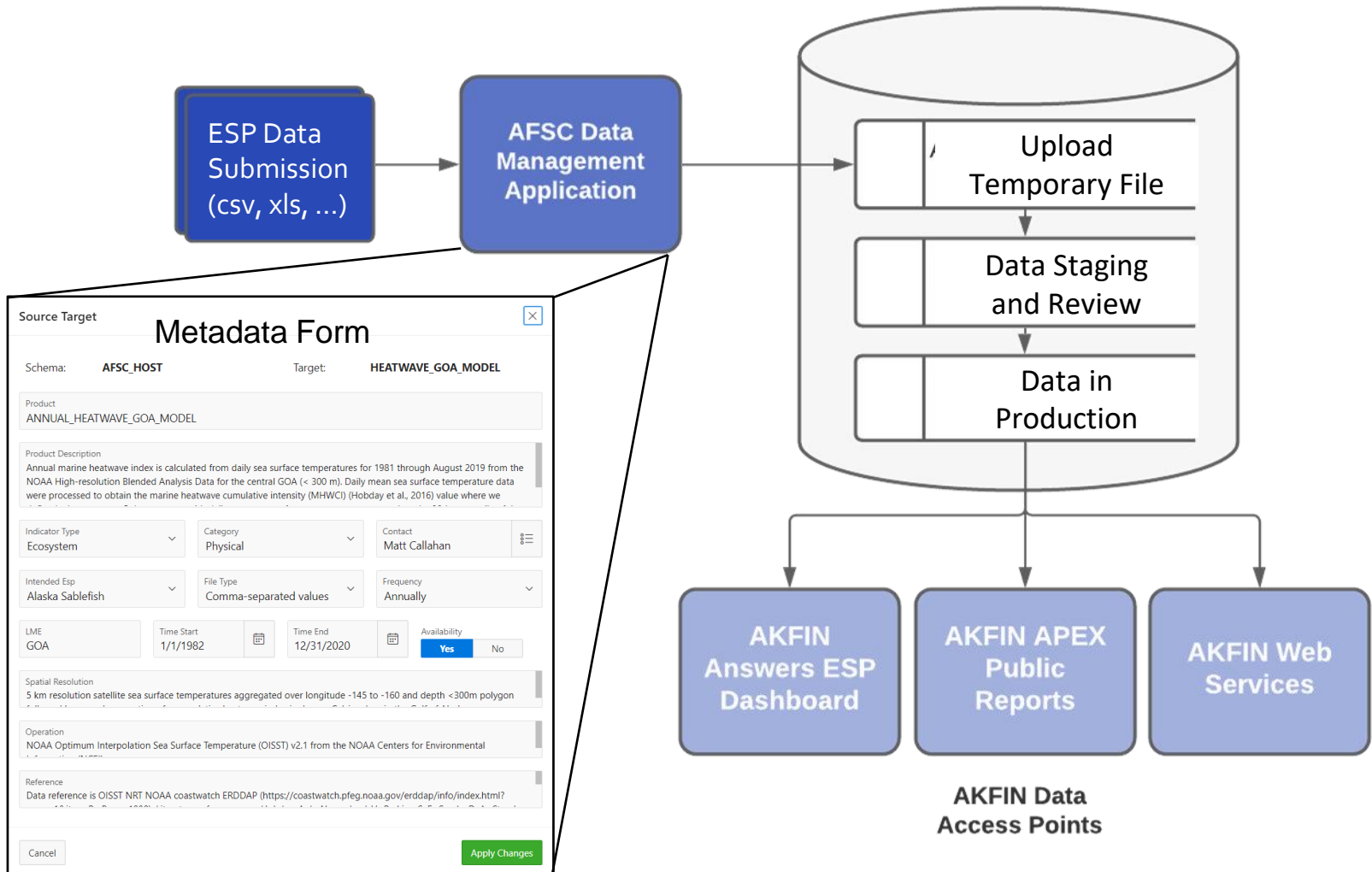
- ESP teams and contributors commit to annual ESP process of review and indicator submission
- ESP teams provide short summary of indicator review and feedback for contributors
- ESP contributors provide contact, be available for questions and follow up, and commit to producing indicator if selected for ESP

Attachments & Literature Cited

Include links to relevant references, reports, webpages, etc. for indicator evaluation by ESP team

[Draft Snow Crab RFI](#)

ESP Submission Tool



ESP Full Template

Stock/Complex:

Outline for Ecosystem and Socioeconomic Profile (ESP)

Executive Summary

- ❑ Short description of an ESP and summary of ecosystem and socioeconomic considerations from the recommendations section
- ❑ Response to Plan Team and SSC Recommendations
- ❑ Table of model performance where applicable

Introduction

Start with a short description of the ESP process with references

Justification & Data

- ❑ Stock-specific regional research priorities
- ❑ Scores in relevant national initiatives, stock assessment classification
- ❑ Brief description of data streams used, reference main SAFE
- ❑ Table of data sources, short description, references

Metrics Assessment

Identifies main processes, highlights mechanisms that lead to indicators

National Metrics

- ❑ Description and graph of relevant stock-specific measures collected in the national initiatives and associated stock vulnerabilities

Ecosystem Processes

- ❑ Summary of ecosystem processes that identify dominant pressures on the stock, evaluate by life history stage where possible with associated life history conceptual model and tables

Socioeconomic Processes

- ❑ Summary of socioeconomic processes that identify dominant pressures on the stock, evaluate by life history stage where possible with associated table of socioeconomic performance information

Indicators Assessment

Identifies the indicator suite and reviews the monitoring analyses

Indicator Suite

- ❑ Brief literature review on indicators previously explored for stock
- ❑ Description of indicator suite based on mechanisms identified in the metric assessment and literature review with time series graph

Indicator Monitoring Analysis

- ❑ Description of statistical tests for monitoring indicator suite (e.g., traffic light, importance methods, research ecosystem linked model)
- ❑ Supportive graphs and tables of statistical tests where relevant
- ❑ Table of model performance metrics (e.g. retrospective trends)

Recommendations

Summary of ecosystem and socioeconomic considerations for use in the main stock assessment

Ecosystem & Socioeconomic Considerations

- ❑ Summary conclusions from metric and indicator assessment

Data Gaps and Future Research Priorities

Description of metric or indicator data gaps, priorities for ecosystem and [socioeconomic](#) research that would support future versions of the ESP

Acknowledgements & Literature Cited

ESP Partial Template

Stock/Complex:

Outline for Ecosystem and Socioeconomic Profile (ESP)

Executive Summary (Partial)

- Short description of an ESP process and reference to full ESP

Summary of Changes in Assessment Inputs

- Changes in the data for the ESP
- Changes in ecosystem processes
- Changes in socioeconomic processes
- Changes in the indicator suite with graphics where relevant
- Changes in the indicator monitoring analysis
- Table of data sources, key processes affecting survival, conceptual model graphics

Summary of Results

- List of ecosystem indicators based on mechanisms identified in the full ESP and changes in the ecosystem processes with standard time series graph
- List of socioeconomic indicators based on mechanisms identified in the full ESP and changes in the socioeconomic processes with standard time series graph
- Beginning stage traffic light test with comparison table and historical scoring by ecosystem and socioeconomic indicators
- Intermediate stage importance test with covariate graph, direction, magnitude, and importance results
- Advanced stage research model update with reference to developed model and supportive graphs and performance metrics (optional)

Ecosystem Considerations

- Summary of ecosystem considerations from the metric and indicator assessment for use in the main stock assessment

Socioeconomic Considerations

- Summary of socioeconomic considerations from the metric and indicator assessment for use in the main stock assessment

Data Gaps and Future Research Priorities

- Description of metric or indicator data gaps and needs
- Priorities for ecosystem and socioeconomic research that would support future versions of the ESP

Responses to SSC and Plan Team Comments on ESPs in General

- List of comments related to ESPs in general since the last full ESP
- Responses to comments where possible

Responses to SSC and Plan Team Comments Specific to this ESP

- List of comments related to this ESP since the last full ESP
- Response to comments where possible

Acknowledgements & Literature Cited

ESP Report Card

Stock/Complex:

Outline for Ecosystem and Socioeconomic Profile (ESP)

Current Year Update (Report Card)

- Short description of an ESP process and reference to full ESP

Management Considerations

- Summary ecosystem and socioeconomic considerations from the assessment for use in the main stock assessment

Modeling Considerations

- Summary of intermediate stage importance results and research ecosystem linked model status

Assessment

Ecosystem and Socioeconomic Processes

- Short description of ecosystem and socioeconomic processes from full or partial ESP with conceptual models
- Table of data sources, key processes affecting survival, conceptual model graphics

Indicator Suite

- List of ecosystem and socioeconomic indicator titles with standard time series graph

Indicator Monitoring Analysis

- Beginning stage traffic light test with comparison table and historical scoring by ecosystem and socioeconomic indicators

- Intermediate stage importance test with covariate graph, direction, magnitude, and importance results (optional)
- Advanced stage research model update with reference to developed model and supportive graphs (optional)

Data Gaps and Future Research Priorities

- Description of metric or indicator data gaps and needs
- Priorities for ecosystem and socioeconomic research that would support future versions of the ESP |

Acknowledgements & Literature Cited

Sablefish ESP Example

Step 1



- SAFE**
- Nov PT
 - Dec Council
 - Request ESP

Step 2



- RFI**
- Jan Request
 - Team Review
 - Feb Decision

Step 3



- ESP Full**
- Team Draft
 - Jun Council
 - Sep Final

Step 4



- ESP Card**
- Current Yr
 - Nov PT
 - Dec Council

Note: Timing is different for crab stocks, but the sequence is the same.

ESP Teams & Contributors

- ESP Teams
 - Consist of facilitator, stock assessment author, status report representative and subject matter experts
 - Responsibilities: conduct RFI, create reports, present
 - Sablefish, Pollock, Pacific cod, Crab, Data-limited
- ESP Contributors
 - Submit indicators in response to an RFI and indicator was selected by the ESP team for the ESP
 - Responsibilities: indicator updates (ACT), review text

Roles of ESP Teams

• Facilitator & Lead Stock Assessment Author

10-15 p

- Organize meetings^F, choose team members^A
- Create^F, synthesize^F, review^{F,A}, present^F the ESP

• Status Report Representative

2-3 p

- Coordinates ESR/Econ with ESP, avoids redundancy
- Write sections of report, review final ESP

• Subject Matter Experts

1-2 p

- Provide expertise during meetings, review indicators
- May write some text of report, review final ESP

Roles of ESP Contributors

- Data

1/2 p

- Submit indicator data through submission tool
- Provide descriptive text of indicators, metadata

- Report

- Review sections of ESP report pertaining to data sources or indicators from their contribution

- Contact

- Provide contact info and be available for questions
- Engage in ACT (accessible, consistent, and timely)

Future of ESPs

- National ESP Workshops and Initiative
 - Three workshops: east coast, west coast, HQ
 - Presentations on AFSC ESPs and lessons learned
 - Goal 1: Kickstart other science center ESPs
 - Goal 2: Define metrics to track EBFM progress
- ESP Smart Metrics
 - Defined in the Regional Action Plans
 - Record ESPs reports in Data Classification and SIS
 - Track progress of research ecosystem model runs
 - Count communication of ESPs (meetings, online)

Next Steps

- 2022 ESPs
 - Plan to only continue current recommended ESPs for next cycle due to the new operations
 - Sablefish, GOA Pollock, EBS & GOA Pcod
 - RFIs for each in January, possible partials
 - Report cards for all ESPs in November
- ESP Communications
 - Update ESP dashboard, create website
 - Begin national ESP initiative ~spring 2022

Plan Team Feedback

- 1) Is the ESP schedule starting in January acceptable for the Council bodies?
- 2) Is it ok to only continue with the current recommended ESPs for 2022 as we implement the new cycle?
- 3) Is there any feedback on the Request for Indicators (RFI) approach or submission tool?
- 4) Are the three reporting templates acceptable for the ESP report and current year update?



Questions?

Contact:

Kalei Shotwell, NOAA-AFSC
Kalei.Shotwell@noaa.gov