

Classification of Sculpin Species in the BSAI and GOA FMPs

Initial Review

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Introduction

- In April 2019, the Council reviewed a discussion paper that:
 - evaluated the appropriate level of conservation and management required for sculpins in the BSAI and GOA consistent with MSA and NS guidelines,
 - assessed whether the best available scientific information indicates sculpins could be managed as non-target ecosystem component species, and
 - assessed regulations to:
 - Prohibit directed fishing for sculpins,
 - Establish maximum retainable amounts for sculpins, and
 - Require recordkeeping and reporting if sculpins were reclassified as non-target species.

April 2019 Council Meeting Motion

- Purpose & Need adopted
- Alternative 1: Status quo
- Alternative 2 (Preliminary Preferred Alternative): Designate sculpins in both BSAI and GOA FMPs as non-target ecosystem component species



Photo courtesy of Doug Duncan

Target vs Non-Target species

- Target
 - Require conservation and management
- Non-target
 - Require conservation and management
- Non-target ecosystem component
 - Do not require conservation and management



Photo courtesy of Doug Duncan

Sculpins Life History and Ecosystem Role (Section 3.2.1)

- Sculpins are relatively small benthic species.
- 48 species have been identified in the BSAI and GOA (Table 3-2).
- They are distributed throughout the BSAI and GOA.
- Sculpins range in size from <10cm to 80 cm.
- They are benthic predators of the shelf and slope ecosystems.

Sculpins Life History and Ecosystem Role (Section 3.2.1)

- Little is known about the stock structure of sculpin species.
- Within each sculpin species, life history characteristics point to the existence of local population structures.
- Length measurements of the most abundant sculpin species have been stable in both the BSAI and GOA with no strong trends apparent.
- Trawl survey biomass estimates in the BSAI and GOA also fairly stable.

Table 3-3: Biomass, OFL, ABC, TAC, Catch

	Bering Sea and Aleutian Islands							Gulf of Alaska						
Year	Biomass (mt)	OFL (mt)	ABC (mt)	TAC (mt)	Catch (mt)	Catch / Biomass	Year	Biomass (mt)	OFL (mt)	ABC (mt)	TAC (mt)	Catch (mt)	Catch / Biomass	
2011	199,348	58,300	43,700	5,200	5,377	0.03	2011	33,729	7,328	5,496	5,496	774	0.02	
2012	183,942	58,300	43,700	5,200	5,798	0.03	2012	34,112	7,641	5,731	5,731	794	0.02	
2013	171,523	56,400	42,300	5,600	5,864	0.03	2013	34,500	7,641	5,731	5,731	1,964	0.06	
2014	189,359	56,400	42,300	5,600	4,902	0.03	2014	35,155	7,448	5,569	5,569	1,182	0.03	
2015	186,386	52,365	39,725	4,700	5,003	0.03	2015	35,823	7,448	5,569	5,569	1,018	0.03	
2016	199,937	52,365	39,725	4,500	4,911	0.02	2016	34,340	7,338	5,591	5,591	1,330	0.04	
2017	188,656	56,582	42,387	4,500	5,338	0.03	2017	32,918	7,338	5,591	5,591	1,316	0.04	
2018	188,656	53,201	39,995	5,000	5,105	0.03	2018	34,943	6,958	5,301	5,301	610	0.02	
2019	188,656	53,201	39,995	5,000	771*	0.00	2019	33,124	6,958	5,301	5,301	43*	0.00	

Targeting, Catch, and Retention (Section 3.2.3)

- Before 2010, sculpins were managed as part of the “other species complex” but have since been managed as an independent complex with their own harvest specifications.
- Tier 5 complex
- No directed fishing for sculpins – taken only as bycatch.

Table 3-7: Total catch in metric tons of sculpin complex and portion retained 2003-2018

	BSAI			GOA	
Year	Sculpin catch (mt)	% sculpins retained		Sculpin catch (mt)	% sculpins retained
2003	5,614	1%		629	7%
2004	6,020	1%		701	9%
2005	5,642	2%		626	16%
2006	5,733	3%		583	16%
2007	7,702	5%		960	19%
2008	7,368	6%		1,925	14%
2009	7,036	9%		1,374	18%
2010	5,624	4%		911	12%
2011	5,373	5%		763	10%
2012	5,798	5%		795	13%
2013	5,828	3%		1,966	1%
2014	4,865	3%		1,187	3%
2015	4,980	2%		1,016	1%
2016	4,410	2%		1,330	3%
2017	5,338	1%		1,316	1%
2018	5,105	2%		610	2%
2019	771	2%		43	3%

Effects of the Alternatives (Sections 3.2.4 and 3.3)

- On Sculpins
- On Prohibited Species



Photo courtesy of Josh Keaton

Table 4-1: Retained catch of sculpins by gear and sector

YEAR	Catcher Vessels delivering to Shoreside Processing Plants or Stationary Floating Processors		Catcher/ Processors and Motherships		TOTAL		
	Trawl	Nontrawl	Trawl	Nontrawl	Trawl	Nontrawl	Total
2011	144	4	241	0	384	4	388
2012	164	11	211	2	375	13	388
2013	60	5	126	0	187	5	192
2014	57	16	97	0	154	16	170
2015	41	4	64	0	105	4	109
2016	52	11	68	0	120	11	131
2017	23	8	44	0	67	8	75
2018	32	8	67	0	100	8	107

Table 4-2: Value of Sculpins

Year	Ex vessel price per pound of CV sculpins that was processed into fish meal (\$)	
	BSAI	GOA
2006	0.02	0.02
2007	0.02	0.02
2008	0.01	0.02
2009	0.01	0.02
2010	0.02	0.02
2011	0.02	0.02
2012	0.02	0.02
2013	0.02	0.02
2014	0.02	0.00
2015	0.02	0.02
2016	0.02	0.00
2017	0.02	0.00

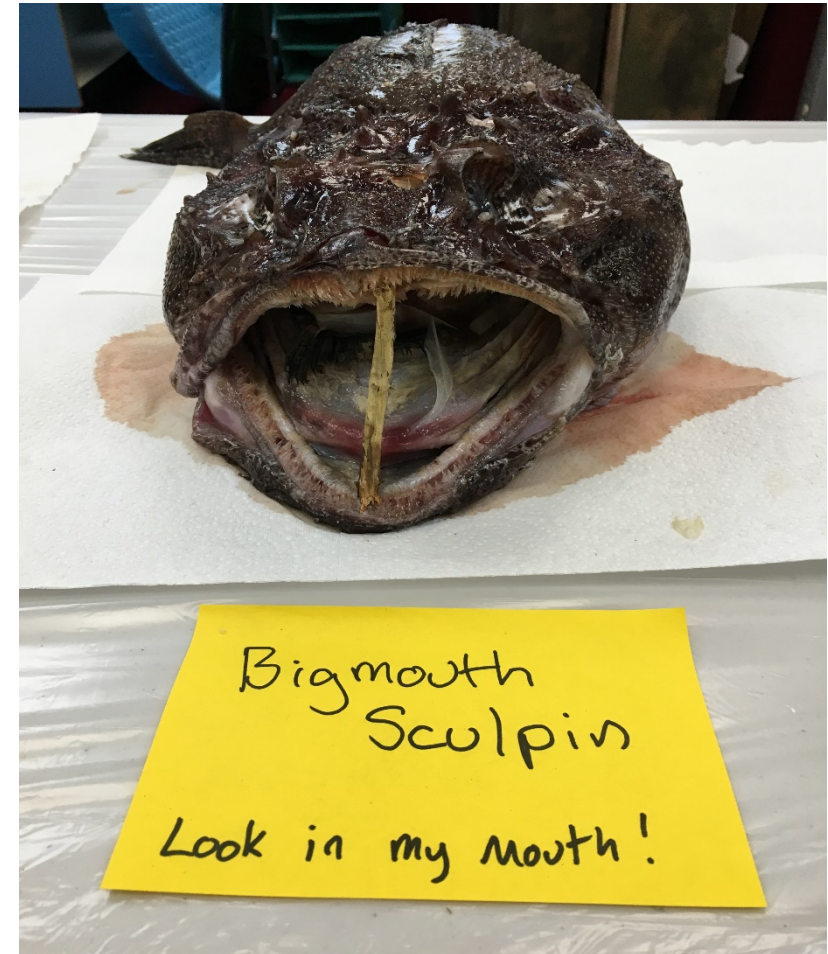


Photo courtesy of Josh Keaton

Analysis of Impacts: Costs and Benefits of Alternatives (Section 4.5)

- Alternative 1: Status Quo
 - Sculpins remain a target species with their own harvest specifications
 - BSAI sculpins “funded” from reduced TAC of other groundfish species
- Alternative 2 (Preliminary Preferred Alternative): Move sculpins to EC
 - Sculpins would be moved to the non-target EC category
 - 5,000 mt of TAC would be available in the BSAI

Affected Small Entities (Section 4.5.3)

- The IRFA for the BSAI and GOA 2019-2020 Harvest Specifications estimates there were 170 CVs and 4 CPs in the BSAI and 821 CVs and 3 CPs in the GOA.
- Possible that vessel operators in BSAI fisheries that receive higher TAC via Alt 2 could be small entities.
- Only potential adverse economic impact would be for those wishing to develop a directed fishery or to retain more than is allowed by the MRA.

Management and Enforcement Considerations (Section 4.6)

- Prohibiting directed fishing for sculpins
- Maximum retainable amounts
- Recordkeeping and reporting
- Enforcement and Observer Program



Photo courtesy of Doug Duncan

Comparison of sculpins management under Alternatives 1 and 2

	Alt 1 – No Action	Alt 2 (Preliminary Preferred Alt) – Ecosystem Component
Directed Fishing	No	No
MRA	Yes	Yes
OFL/ABC/TAC	Yes	No
Retained for use or sale	Yes	Yes
Recordkeeping and Reporting	Yes	Yes

Net Benefit to the Nation

- Net benefits would likely increase under Preliminary Preferred Alternative 2:
 - Harvest specifications for sculpins would no longer be required
 - Sculpins TAC in the BSAI would be released to contribute to other, presently more valuable, groundfish species.



Photo courtesy of Josh Keaton

Conservation and Management

- Magnuson-Stevens Act requires a council to prepare a FMP for each fishery under its authority that requires conservation and management.
- Section 3(5) of the MSA defines “conservation and management.”

National Standard Guidelines for classification of stocks (10 Factors)

1. The stock is an important component of the marine environment.
2. The stock is caught in the fishery.
3. Whether a FMP can improve or maintain the condition of the stock.
4. The stock is a target of the fishery.
5. The stock is important to commercial, recreational, or subsistence
6. The fishery is important to the Nation or regional economy.
7. The need to resolve competing interests and conflicts
8. The economic condition of a fishery
9. The needs of a developing fishery
10. The extent to which a fishery is already adequately managed

Ecosystem Component Requirements Applied to Sculpins

NS Factor	Relevance to sculpins in Alaska
i. The stock is an important component of the marine environment.	<ul style="list-style-type: none"> • Sculpins are predators of the shelf and slope ecosystems in the BSAI and GOA (section 3.2.1).
ii. The stock is caught by the fishery.	<ul style="list-style-type: none"> • Sculpins are caught incidentally to other groundfish fisheries in the BSAI and GOA (section 3.2.3).
iii. Whether a FMP can improve or maintain the condition of the stock	<ul style="list-style-type: none"> • Sculpins are not experiencing overfishing and fishing related mortality is low in both the BSAI and GOA (Table 3-3). • There is no directed fishing for sculpins in either the BSAI or GOA. • In the absence of directed fishing, sculpins are very unlikely to become overfished in either the BSAI or GOA.

Ecosystem Component Requirements Applied to Sculpins

NS Factor	Relevance to sculpins in Alaska
iv. The stock is a target of a fishery.	<ul style="list-style-type: none"> There is no directed fishing for sculpins in either the BSAI or GOA.
v. The stock is important to commercial, recreational, or subsistence users.	<ul style="list-style-type: none"> Sculpins are not considered important to commercial, recreational, or subsistence users in either the BSAI or GOA; however, there is some limited ongoing use of sculpins for fish meal (section 2.3).
vi. The fishery is important to the Nation or to the regional economy.	<ul style="list-style-type: none"> Sculpins have limited economic value relative to other BSAI and GOA groundfish, and are not considered important to the National or regional economy (Table 4-2).
vii. The need to resolve competing interests and conflicts among user groups, and whether a FMP can further that resolution.	<ul style="list-style-type: none"> There is no directed fishing for sculpins in either the BSAI or GOA, no allocations to user groups, and no competing interests or conflicts among user groups relative to sculpins.

Ecosystem Component Requirements Applied to Sculpins

NS Factor	Relevance to sculpins in Alaska
viii. The economic condition of a fishery and whether a FMP can produce more efficient utilization.	<ul style="list-style-type: none"> • Sculpins have limited economic value relative to other BSAI and GOA groundfish (Table 4-2). • Retention of sculpins has varied, but is currently less than 5% in both the BSAI and GOA.
ix. The needs of a developing fishery, and whether a FMP can produce more efficient utilization.	<ul style="list-style-type: none"> • There is currently no developing fishery for sculpins in either the BSAI or GOA. • Existing FMPs could adequately manage any new fishery.
x. The extent to which the fishery is already adequately managed by states, by state/Federal programs, or by Federal regulations pursuant to other FMPs or international commissions, or by industry self-regulation, consistent with the requirements of the Magnuson-Stevens Act and other applicable law.	<ul style="list-style-type: none"> • Currently, there is no directed fishing for sculpins in either the BSAI or GOA in state or Federal waters.

Conclusion



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