#### C3 REMOVING PROCESSING RESTRICTIONS ON SQUIDS AND SCULPINS IN THE BSAI AND GOA STEVE MACLEAN, OCTOBER 2020

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### INTRODUCTION AND BACKGROUND

- This Regulatory Impact Review examines the benefits and costs of proposed alternatives regarding processing a sale of squids and sculpins as part of the Ecosystem Component category in the FMPs for the BSAI and GOA.
- Initiated in October 2019
- Purpose and Need adopted in February 2020 (§1.1 Page 10)
  - Squid and sculpin are ecosystem component (EC) species
  - Final rule to move squid to EC prohibited processing and sale other than fishmeal contrary to Council's stated intention.
  - Purpose of the action is to align regulations with long-standing use of squid
  - Disposition of sculpins consistent with squids
- Initial Review completed in February 2020
- Final Review responds to SSC, AP, and Council comments and adds 2019 data





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## DIFFERENCES FROM INITIAL REVIEW

- Confirmed Tables 3-2 and 3-3 are most up to date information on abundance
- Table 4-1 shows increase in incidental catch of squid in 2019
- Tables 3-4, 3-5, 4-2 and 4-3 updated to include 2019 squid catch data
- Section 4-6 updated to identify "other" squid processing communities of Akutan, King Cove, Sand Point, and Seward
- Section 4.5.1.4 updated to indicate fixed-gear vessels are primary consumers of squid bait
- Sections 4.6.1 and 4.6.2 updated to reflect use of bait by fixed-gear vessels and increased cost associated with imported bait
- Section 4.5.1.2 updated to include information about EFP 2019-03





## CONCLUSIONS

- Anomalously high squid catch in 2019 was likely affected by factors other than inclusion in EC
  - Overall abundance of squid
  - Avoidance of Chinook salmon and sablefish
- Potential impacts of removing processing restrictions are economic
  - Additional revenue from squid as bait
  - Reduced costs to fixed-gear fleet by using squid as bait
  - Reduced regulatory discards





### DESCRIPTION OF ALTERNATIVES

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- 2.1 Alternative 1: Status quo. Squids and sculpins in both the BSAI and GOA FMPs are designated as non-target ecosystem component species with prohibition on the use of squids and sculpins other than as fishmeal.
- 2.2 Alternative 2: Squids and sculpins in both the BSAI and GOA FMPs are designated as non-target "ecosystem component species". Preliminary Preferred Alternative.





# COMPARISON OF ALTERNATIVES – TABLE 2-3, P 18

| Management<br>Measure            | Alt I- No Action   | Alt 2 – No Processing Restrictions   |  |  |  |  |
|----------------------------------|--|--|--|--|--|--|
| Prohibit Directed                | Yes  | Yes  |  |  |  |  |
| Fishing                          | Prohibit directed fishing in regulations at 679.20(i)  | Prohibit directed fishing in regulations at 679.20(i)  |  |  |  |  |
| Retention and Sale               | Yes<br>Retention and sale allowed as fishmeal only, subject to MRA<br>limits.  | Yes<br>Retention and sale as any product form allowed, subject to MRA<br>limits.   |  |  |  |  |
| Annual Harvest<br>Specifications | No<br>Periodic reports on biomass information from current<br>surveys will be included in the SAFE<br>Catch does not accrue to optimum yield cap | No<br>- Periodic reports on biomass information from current surveys<br>will be included in the SAFE<br>- Catch does not accrue to optimum yield cap |  |  |  |  |
| Incidental Catch                 | Yes  | Yes  |  |  |  |  |
| Management                       | MRA = 20% for all basis species  | MRA = 20% for all basis species  |  |  |  |  |
| Recordkeeping and                | Yes  | Yes  |  |  |  |  |
| Reporting                        | Require catch reporting  | Require catch reporting  |  |  |  |  |





## BIOLOGICAL AND FISHERY INFORMATION CH3 P19

- 15 species of squids in BSAI and GOA
- Berryteuthis magister is most abundant
- No commercial fishery for squid in BSAI or GOA
- AFSC bottom trawl surveys do not sample squid reliably.
- Biomass estimates fluctuate annually and are likely underestimates.
- Squids are caught incidentally to directed groundfish fishery – primarily pollock (Table 3-4 and 3-5)







### **REGULATORY IMPACT REVIEW**

#### CH 4 P33

#### Table 4-1. Catch (mt) and retention (mt) of squid by all groundfish fisheries by FMP area 2009-2020

|                   |       | BSA      |            |       | GOA      |            |  |  |  |
|-------------------|-------|----------|------------|-------|----------|------------|--|--|--|
| Year              | Catch | Retained | % Retained | Catch | Retained | % Retained |  |  |  |
| 2009              | 360   | 181      | 50.4       | 337   | 293      | 86.7       |  |  |  |
| 2010              | 410   | 270      | 65.8       | 131   | 120      | 91.6       |  |  |  |
| 2011              | 336   | 149      | 44.2       | 233   | 188      | 80.9       |  |  |  |
| 2012              | 688   | 471      | 68.5       | 18    | 3        | 13.7       |  |  |  |
| 2013              | 299   | 112      | 37.4       | 322   | 304      | 94.6       |  |  |  |
| 2014              | 1,678 | 993      | 59.2       | 94    | 63       | 66.6       |  |  |  |
| 2015              | 2,364 | 1,951    | 82.6       | 411   | 329      | 80.1       |  |  |  |
| 2016              | 1,286 | 526      | 40.9       | 240   | 139      | 57.8       |  |  |  |
| 2017              | 1,996 | 1,019    | 51.0       | 39    | 12       | 30.1       |  |  |  |
| 2018              | 1,736 | 1,299    | 74.8       | 43    | 9        | 20.3       |  |  |  |
| 2019 <sup>1</sup> | 5,928 | 2,742    | 46.2       | 63    | 48       | 76.1       |  |  |  |
| 2020 <sup>2</sup> | 260   |          |            | 101   |          |            |  |  |  |



<sup>1</sup>Squid managed in EC category. AKFISH\_REPORT\_V\_CAS\_NONTARGET\_ESTIMATE accessed January 15, 2020. AKFIN accessed December 18, 2019

<sup>2</sup>Squid catch through July 7, 2020 (NMFS, Pers. Comm.). Amount retained in 2020 is not available.

### **REGULATORY IMPACT REVIEW**

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Table 4-4. Annual production (in pounds) of squid to fish meal, whole bait, and whole fish/food fish in the BSAI and GOA, combined from 2009 – 2018.

|            | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016 | 2017 | 2018    |
|------------|---------|---------|---------|---------|---------|---------|---------|------|------|---------|
| Fish Meal  |         |         |         |         |         |         |         | *    | *    | *       |
| Whole Bait | 86,743  | 389,226 | 262,897 | 299,184 | 277,434 | 798,976 | 856,860 | *    | *    | 832,476 |
| Whole Fish | 313,711 | *       | *       | 2,690   | 24,740  | *       | *       | *    | *    | *       |
| Processors | 7       | 6       | 8       | 10      | 10      | 4       | 4       | 5    | 3    | 7       |

\* Data are confidential

Source: AKFIN accessed December 23, 2019

| Table 4-5. Total production (in pounds) of squid to fish meal, whole bait, whole fish/food fish, |
|--|
| and gross first wholesale value in the BSAI and GOA, combined, from 2009 – 2018.                 |

| Product Type | Total Production weight (pounds) | Gross first wholesale value (\$) |
|--------------|----------------------------------|----------------------------------|
| Fish Meal    | 9,209                            | 7,115                            |
| Whole Bait   | 3,804,682                        | 2,347,114                        |
| Whole Fish   | 836,147                          | 374,835                          |

Source: AKFIN accessed December 23, 2019

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### **REGULATORY IMPACT REVIEW**

#### Table 4-6. Total squid production (mt) by community in the BSAI and GOA, 2009 – 2019.

|                | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015  | 2016 | 2017 | 2018 | 2019  |
|----------------|------|------|------|------|------|------|-------|------|------|------|-------|
| Dutch/Unalaska | *    | 71   | 42   | 73   | 8    | 592  | 655   | 82   | 320  | 662  | 1,271 |
| Kodiak         | 296  | 125  | 184  | 2    | 276  | 60   | 318   | 127  | 6    | 4    | 8     |
| Other          | 126  | 179  | 80   | 379  | 108  | 324  | 1,202 | 226  | 270  | 383  | 1,350 |

\*Data are confidential Source: AKFIN accessed August 7, 2020

Other Communities includes Akutan, King Cove, Sand Point, and Seward





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### ANALYSIS OF IMPACTS

- Lack of data and predicting individual actions make analysis of impacts difficult
- Before 2019 squid could be processed and sold, prohibited starting in 2019
- HOWEVER, some processors did sell squid as bait in early 2019 until told of the restriction at the end of July 2019
- This provides some information about whether sale of squids as bait affected the level of squid catch





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### ANALYSIS OF IMPACTS





Figure 4-4. Cumulative squid landings (mt) by week in the BSAI and GOA 2009 - 2019. AKFIN 12.23.2019.



CH 4.6.1 P42

### ANALYSIS OF IMPACTS

- Alternative 1 status quo
  - Squids and sculpins remain as Ecosystem Component Species with all requirements and processing restrictions
  - Difficult to predict levels of incidental squid catch because of data limitations
    - If high levels of incidental catch persist, processors may experience higher costs
  - Processors may forgo revenue from squid processed as bait
  - Local fixed-gear vessels may have to import bait at higher cost





### ANALYSIS OF IMPACTS

CH 4.6.2 P43

- Alternative 2 Action Alternative Preliminary Preferred Alternative
  - Squids and sculpins remain as Ecosystem Component Species with all requirements, but no processing restrictions
  - Difficult to predict levels of incidental squid catch because of data limitations
    - If high levels of incidental catch persist, processors may be able to generate additional revenue from bait or whole fish/food fish
  - Reduce regulatory discards
  - Local fixed-gear vessels may have lower costs for bait





### ANALYSIS OF IMPACTS – COMMUNITY AND SOCIAL

- Potential community and social impacts are economic
- Processing squid to bait provides some revenue to processors and my reduce cots to local fleets.
- No other impacts that would create adverse economic impacts on any fishing community or cause other adverse social impacts





### ANALYSIS OF IMPACTS

- Both alternatives require monitoring of 20% MRA
- Alternative 1 requires monitoring of product forms to ensure squid and sculpins are not processed into product forms other than fish meal
- No immediate implications for State fishery management
- Marginal impact on Net Benefits to the Nation
- Consistent with MSA National Standards
- Consistent with Council's Ecosystem Vision Statement





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