Kodiak Pacific Cod Fisheries Overview

Report to the Alaska Board of Fisheries

January 11–14, 2020

Oral Report: RC 3; Tab 7
Staff Comments: RC 2
List of Fishery Terms

- **NPFMC** = North Pacific Fishery Management Council
- **NMFS** = National Marine Fisheries Service
- **ABC** = Acceptable Biological Catch
- **TAC** = Total Allowable Catch (Federal/parallel catch limit)
- **GHL** = Guideline Harvest Level (State-waters catch limit)
- **Sectors** = Different gear types or processing capabilities used to allocate federal/parallel TAC
- **LLP** = License Limitation Program (equivalent to state’s limited entry program)
- **FFP** = Federal Fisheries Permit
- **SSL** = Steller Sea Lion
- **VMS** = Vessel Monitoring System
Federal Waters = Waters from 3–200 nmi offshore under federal management jurisdiction

Federal Pacific Cod Groundfish Management Areas (5)
- EGOA = Eastern Gulf of Alaska
- CGOA = Central Gulf of Alaska
- WGOA = Western Gulf of Alaska
- BS = Bering Sea
- AI = Aleutian Islands

State Waters = Waters from 0–3 nmi offshore under state management jurisdiction

State Pacific Cod Groundfish Management Areas (8)
- Eastern Gulf of Alaska (Southeast Alaska)
- Prince William Sound
- Cook Inlet
- Kodiak
- Chignik
- South Alaska Peninsula
- Dutch Harbor Subdistrict
- Aleutian Islands Subdistrict
Alaska Pacific Cod Fisheries:

- **Federal**: Federal waters (3–200 nmi) guided by NPFMC process. Harvest deducted from federal TAC.

- **Parallel**: State waters (0–3 nmi) concurrent with adjacent federal fishery and generally adopt federal regulations and management measures as guided by the board process. Harvest deducted from federal TAC.

- **State-Waters (GHL)**: State waters (0–3 nmi) guided by the board process. Harvest deducted from state GHL.
Pacific Cod Stock Assessment Process

Survey Data (Multiple Indices) → Mathematical Models

Fishery Data → Mathematical Models

Research → Mathematical Models

Technical Review → Initial ABCs → Public Input → NPFMC

Initial ABCs → Technical Review

NPFMC → GHLs → Final ABCs → TACs
Harvest Limits
• **ABC** - Acceptable Biological Catch (Federal: EGOA, CGOA, WGOA, BS, AI)
• **TAC** - Total Allowable Catch (Federal/Parallel Fisheries)
• **GHL** - Guideline Harvest Level (State-Waters Fisheries)

Central Gulf of Alaska (CGOA)

Federal/Parallel Fisheries

- **CGOA ABC**
- **State-Waters Fisheries**

- **TAC**
  - **A Season**
  - **B Season**
  - **HAL CP**
  - **HAL CV <50 ft**
  - **HAL CV >50 ft**

- **GHL**
  - **Kodiak**
  - **Chignik**
  - **Cook Inlet**
  - **Pot Jig**
CGOA Federal Pacific Cod Fishery

- Federal waters 3–200 nmi
- Harvest limit (TAC) based on 75% of federal Pacific cod ABC
- Gear sectors: trawl, longline, pot, and jig gear (CV and CP)
- A and B seasons (Jan 1 and Sep 1)
- No gear limits, vessel length limited to 125 ft
- Limited access (FFP and LLP required)
- Steller sea lion (SSL) protection measures (no fishing zones and VMS)
- Observer requirements
Kodiak Area Parallel Pacific Cod Fishery

- State waters 0–3 nmi
- Opened concurrent to federal fishery by state EO
- Shared TAC with federal fishery
- Gear sectors: trawl, longline, pot and jig gear (bottom trawl restrictions)
- A and B seasons (Jan 1 and Sep 1)
- No gear limits, vessel length limited to 125 ft
- Open access (FFP/LLP not required)
- Most SSL protection measures adopted
- Observer requirements only for federally permitted vessels
Kodiak Area State-Waters Pacific Cod Fishery

- State waters 0–3 nmi
- Harvest limits (GHL) based on 12.5% of federal Pacific cod ABCs
- Seasons open after federal/parallel fisheries close
- Pot and jig gear only
- Gear limited to 60 pots or 5 jig machines
- No vessel length limit
- Open access – exclusive registration
- SSL rookery protection only
- No observer requirements
### Overview of Current CGOA State-Waters Fisheries

<table>
<thead>
<tr>
<th></th>
<th>Kodiak Area</th>
<th>Chignik Area</th>
<th>Cook Inlet Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>% CGOA ABC</td>
<td>12.5%</td>
<td>8.75%</td>
<td>3.75%</td>
</tr>
<tr>
<td>2019 GHL</td>
<td>2.11 million pounds</td>
<td>1.48 million pounds</td>
<td>634,000 pounds</td>
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<tr>
<td>Gear Types</td>
<td>Pot and jig</td>
<td>Pot and jig</td>
<td>Pot and jig</td>
</tr>
<tr>
<td>GHL Allocations</td>
<td>Pot: 50% (1.06 mil)</td>
<td>Pot: 90% (1.33 mil)</td>
<td>Pot: 85% (539k)</td>
</tr>
<tr>
<td></td>
<td>Jig: 50% (1.06 mil)</td>
<td>Jig: 10% (148k)</td>
<td>Jig: 15% (95k)</td>
</tr>
<tr>
<td>Opening date</td>
<td>Pot: 7 days after CGOA A season pot close</td>
<td>Pot: 7 days after CGOA pot A season close or March 1</td>
<td>Pot: 24 hours after CGOA pot A season close</td>
</tr>
<tr>
<td></td>
<td>Jig: 48 hours after CGOA jig A season close or March 1</td>
<td>Jig: March 15</td>
<td>Jig: 48 hours after CGOA jig A season close</td>
</tr>
<tr>
<td>GHL rollover date</td>
<td>After CGOA pot gear B season close</td>
<td>August 14</td>
<td>September 1</td>
</tr>
<tr>
<td>Registration</td>
<td>Exclusive</td>
<td>Superexclusive</td>
<td>Exclusive</td>
</tr>
<tr>
<td>Maximum vessel length</td>
<td>None</td>
<td>58 ft</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Jig: 54</td>
<td>Jig: &lt;1</td>
<td>Jig: 4</td>
</tr>
</tbody>
</table>
Gulf of Alaska Pacific Cod Biomass

Source: Barbeaux et al.
• Spawning biomass has declined sharply since 2014 and is projected to reach an all-time low in 2020

• Due to increased natural mortality and poor recruitment during the “Blob” (2014–2016 GOA marine heatwave event)

• Two important stock status thresholds:
  \[ B_{20\%} = \text{SSL closure} \]
  \[ B_{17.5\%} = \text{overfished} \]

• In 2020, spawning biomass is projected to be \( B_{17.6\%} \)
  (Below the SSL threshold but above the overfished threshold)

Therefore...
• Directed federal fisheries closed in 2020 due to SSL rules

• State-waters GHLs reduced by 35% to promote conservative management of Pacific cod and address SSL concerns

• Spawning biomass projected to be above $B_{20\%}$ in 2021 based on reduced harvest and assumptions of average natural mortality and recruitment from 2018 forward

But...
• New marine heatwave event began September 2018
• 2019 summer sea surface temps were warmer than during the “Blob” years (2014–2016)
2020 Kodiak Finfish Meeting
Pacific Cod Proposals (7)

Jig gear fishery – 2 Proposals
- Proposals 39 - Exclusivity
- Proposal 50 - Gear limits

State-waters gear allocations – 2 Proposals
- Proposals 51 - GHL gear allocation
- Proposal 54 - GHL rollover

State-waters with federal/parallel overlap – 2 Proposals
- Proposals 52 - ABC allocation and GHL gear allocation
- Proposals 53 - Interannual GHL rollover

State-waters season dates – 1 Proposal
- Proposal 283 - AIS season dates and vessel length limits
Proposal 39
Designate all registration areas as nonexclusive for state-waters Pacific cod jig gear fisheries

- Allow jig gear vessels to fish in multiple areas during the same calendar year

Proposal 50
Increase gear limits in Kodiak Area jig gear fisheries from 5 jig machines to 6 jig machines

- Applies to all vessels in state-waters Pacific cod and state-managed black rockfish fisheries and to non-FFP vessels in the parallel Pacific cod fishery
- Vessels in the parallel Pacific cod fishery with FFPs would be subject to federal gear limits
Proposal 51
Change GHL gear allocation between pot and jig gear from 50/50 to 60/40 and annually increase or decrease jig gear allocation by 5% based on previous year’s fishery performance

• Pot gear allocation would not exceed 80% or be reduced below 50%
• Jig gear allocation would not exceed 50% or be reduced below 20%

Proposal 54
Reopen pot gear fishery on May 8 and make 50% of unharvested jig gear GHL allocation available for harvest by pot gear vessels

• Provides pot gear vessels access to a portion of the jig gear GHL allocation but does not reallocate GHL
Proposal 52
Increase Kodiak Area state-waters fishery’s portion of CGOA ABC by 5% (from 12.5% to 17.5%) and make the additional 5% available only to pot gear vessels by changing the GHL gear allocation between pot and jig gear from 50/50 to 65/35
• 82% increase in state-waters pot gear GHL
• 2% decrease in state-waters jig gear GHL
• 5% decrease in federal TAC

Proposal 53
Roll unharvested jig gear GHL allocation to the pot gear vessel’s allocation during following year’s state-waters fishery
• Annually variable CGOA ABC apportionment
• Increase GHLs and decrease TACs
Proposal 283
Amend season dates for the Aleutian Islands Subdistrict (AIS) state-waters Pacific cod fishery to exclude vessels greater than 60 ft in length prior to March 15

• Board generated proposal