FISHERY REVIEW THROUGH 2023
### PRELIMINARY CHARTER ESTIMATES FOR 2023

<table>
<thead>
<tr>
<th>Area</th>
<th>Mean Harvest Weight (lb)</th>
<th>Harvest (no. fish)</th>
<th>Yield (lb)</th>
<th>Release Mortality (lb)</th>
<th>Total Removals (lb)</th>
<th>Allocation (lb)</th>
<th>Overage (lb)</th>
<th>Overage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2C</td>
<td>9.41</td>
<td>83,605</td>
<td>786,438</td>
<td>26,338</td>
<td>812,776</td>
<td>800,000</td>
<td>12,776</td>
<td>1.6%</td>
</tr>
<tr>
<td>3A</td>
<td>10.09</td>
<td>153,337</td>
<td>1,546,445</td>
<td>9,219</td>
<td>1,555,664</td>
<td>1,890,000</td>
<td>-334,336</td>
<td>-17.7%</td>
</tr>
</tbody>
</table>

**2023 Regulations**

**2C** –
- One fish bag limit
- Reverse slot size limit of less than or equal to 40 inches or greater than or equal to 80 inches
- **Closed on Mondays starting July 24th**

**3A** –
- Two fish bag limit: one fish of any size, one fish less than or equal to 28 inches
- One trip per vessel per day and per charter halibut permit per day
- Wednesdays closed to retention of halibut
- **Nine Tuesdays closed to retention of halibut**
2C CHARTER HALIBUT REMOVALS

![Graph showing halibut removals (Mlb) and GHL/CSP Alloc over years from 2006 to 2022.](chart.png)
3A CHARTER HALIBUT REMOVALS

![Graph showing halibut removals (Mlb) from 2006 to 2022, with removals (Mlb) after CSP implementation and GHL/CSP Alloc indicated.](image-url)
3A EFFORT

Angler Days

- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023

Years: 2014 to 2023

Values: 0 to 140,000

Legend: Angler Days
## BUSINESSES AND VESSELS
### HARVESTING HALIBUT

<table>
<thead>
<tr>
<th>Year</th>
<th>2C Businesses</th>
<th>2C Vessels</th>
<th>3A Businesses</th>
<th>3A Vessels</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>246</td>
<td>520</td>
<td>259</td>
<td>399</td>
</tr>
<tr>
<td>2015</td>
<td>241</td>
<td>515</td>
<td>250</td>
<td>407</td>
</tr>
<tr>
<td>2016</td>
<td>248</td>
<td>532</td>
<td>240</td>
<td>388</td>
</tr>
<tr>
<td>2017</td>
<td>248</td>
<td>537</td>
<td>227</td>
<td>374</td>
</tr>
<tr>
<td>2018</td>
<td>244</td>
<td>534</td>
<td>232</td>
<td>391</td>
</tr>
<tr>
<td>2019</td>
<td>256</td>
<td>545</td>
<td>226</td>
<td>399</td>
</tr>
<tr>
<td>2020</td>
<td>192</td>
<td>386</td>
<td>203</td>
<td>343</td>
</tr>
<tr>
<td>2021</td>
<td>232</td>
<td>496</td>
<td>231</td>
<td>392</td>
</tr>
<tr>
<td>2022</td>
<td>235</td>
<td>523</td>
<td>220</td>
<td>387</td>
</tr>
<tr>
<td>2023</td>
<td>238</td>
<td>535</td>
<td>215</td>
<td>383</td>
</tr>
</tbody>
</table>
2C – UNGUIDED HALIBUT REMOVALS

Halibut Removals (Mlb)

Years: 2006 to 2023
3A – UNGUIDED HALIBUT REMOVALS

Halibut Removals (Mlb)
ANALYSIS OF MANAGEMENT MEASURES FOR 2024
Allocations are currently unknown

The IPHC’s interim agreement has expired limiting information on potential Regulatory Area TCEYs and allocations for 2024

We have used the 2023 allocations as a reference for this analysis

<table>
<thead>
<tr>
<th>2023 Allocation</th>
<th>2C</th>
<th>3A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023 Mlb</td>
<td>0.80</td>
<td>1.89</td>
</tr>
</tbody>
</table>
Table 2C.3

83,487 halibut
- 95% confidence interval 81,038 – 85,936 halibut

Used preliminary 2023 effort as 2024 forecast
- 2C regulations in 2023 specifically targeted effort by closing days

HPUE used data from 2009 – 2019 and 2022-2023
- Substantial HPUE increases in 2020 and 2021, likely related to changes in size limits
- Figure 2 in the analysis document
Status Quo Regulations:

- One fish bag limit
- Reverse slot limit of less than or equal to 40 or greater than or equal to 80 inches
- Mondays closed starting July 24th
- Projected average weight: 9.94 lbs
- Release mortality: 35,481 lbs
- Table 2C.3
2C – MANAGEMENT MEASURES FOR 2024

- Reverse Slot ranging from 32 – 50 inches on the low end and 50 – 80 inches on the upper end
- Reverse Slot with day closures with savings in removals displayed for each day of closure
  - Analyzed for each day from May 15 – September 15 or for the entire season
  - Analyzed for lower slot limits ranging from 32 inches to 50 inches, and an upper slot limit of 80 inches
- Differential Reverse Slot displayed in removals
  - Analyzed for lower slot limits ranging from 40-45 inches at the beginning of the season, changing to a range of 35-40 inches for the end of the season, and an upper slot limit of 80 inches throughout
  - Analyzed to change lower slot limits on July 1, July 15, and August 1
### 2C – SUMMARY

<table>
<thead>
<tr>
<th>Management Measures</th>
<th>Options Below 2023 Allocation (0.80 Mlb)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status Quo (reverse slot with lower limit of 40 inches and upper limit of 80 inches)</td>
<td>No</td>
</tr>
<tr>
<td>Reverse slot limit with U32-U50 on the low end and O50-O80 on the high end.</td>
<td>Yes</td>
</tr>
<tr>
<td>Reverse slot limit with U32-U50 on the low end and O80 on the high end, analyzed</td>
<td>Yes</td>
</tr>
<tr>
<td>with a day of the week closures presented in savings per day</td>
<td></td>
</tr>
<tr>
<td>Reverse slot limit with U40-U45 change to U35-U40 after July 1, July 15, or August</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
At this stage, it appears that 2C will likely need to adopt more restrictive management measures to remain within allocation (if the allocation ends up being similar to last year)

- There are options within likely range of allocations for 2024
- Day of the week closures
- Reverse slot limit
3A – STATUS QUO FORECAST

- 158,160 halibut
  - 95% confidence interval 153,378 – 162,942 halibut
  - 2023 effort was used as forecast
  - HPUE forecast used data through 2019 and 2022-2023
  - Figure 3 in the analysis document for Effort and HPUE
  - Figure 4 is proportion of second fish in the harvest
3A – STATUS QUO FORECAST

Status Quo Regulations:

- Two fish bag limit: one any size, one less than or equal to 28 inches
- One trip per vessel per day and per charter halibut permit per day
- Wednesdays closed to retention of halibut
- Nine Tuesdays closed to retention of halibut

Status Quo Regulations
Removals
Projection

1.695 Mlb
3A – MANAGEMENT MEASURES FOR 2024

- Day of the week closures on Tuesdays from June 1 – August 31 or for the entire season
- Maximum size limits of 26 – 32 inches on one fish
- Annual limits of 2 – 4 fish
- Any combination of the above management measures
<table>
<thead>
<tr>
<th>Management Measures</th>
<th>Options Below 2023 Allocation (1.89 Mlb)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status quo (two-fish bag limit with a 28-inch maximum size limit on one fish, one trip per vessel and one trip per CHP per day, Wednesday closures all year, and two Tuesdays closed)</td>
<td>Yes</td>
</tr>
<tr>
<td>Day of the week closures on Tuesdays from June 1 – August 31 or for the entire season</td>
<td>Yes</td>
</tr>
<tr>
<td>Maximum size limits of 26 – 32 inches on one fish</td>
<td>Yes</td>
</tr>
<tr>
<td>Annual limits of 2 – 4 fish</td>
<td>Yes</td>
</tr>
<tr>
<td>Combination of the above management measures</td>
<td>Yes</td>
</tr>
</tbody>
</table>
3A – IMPLEMENTATION CONSIDERATIONS AND SUMMARY

- Day of the week closures
- Annual limits
- Release mortality
- Many options within likely range of allocations for 2024
ACKNOWLEDGEMENTS

- Ben Jevons and Kayla Carr – logbook data summaries and review
- Diana Tersteeg and Mike Jaenicke – Southeast data
- Clay Mckean and Marian Ford – Southcentral data
- Countless technicians – halibut measurements and angler interviews
- Sarah Marrinan – Council Staff
- Sarah Webster – ADF&G Fisheries Scientist

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Fish and Game Fund