

C1: ANALYSIS OF MANAGEMENT MEASURES FOR THE AREA 2C AND 3A CHARTER HALIBUT FISHERIES FOR 2022

SARAH WEBSTER - DECEMBER 2022



FISHERY REVIEW THROUGH 2021



PRELIMINARY CHARTER ESTIMATES FOR 2021

Area	Mean	Harvest		Release	Total		Overage (lb)	Overage %
	Weight (lb)	(no. fish)	Yield (lb)	Mortality (lb)	Removals (lb)	Allocation (lb)		
2C	14.48	77,287	1,119,442	34,737	1,154,179	810,000	344,179	42.5%
3A	13.23	184,160	2,436,779	17,622	2,454,401	1,950,000	504,401	25.9%

2021 Regulations:

2C –

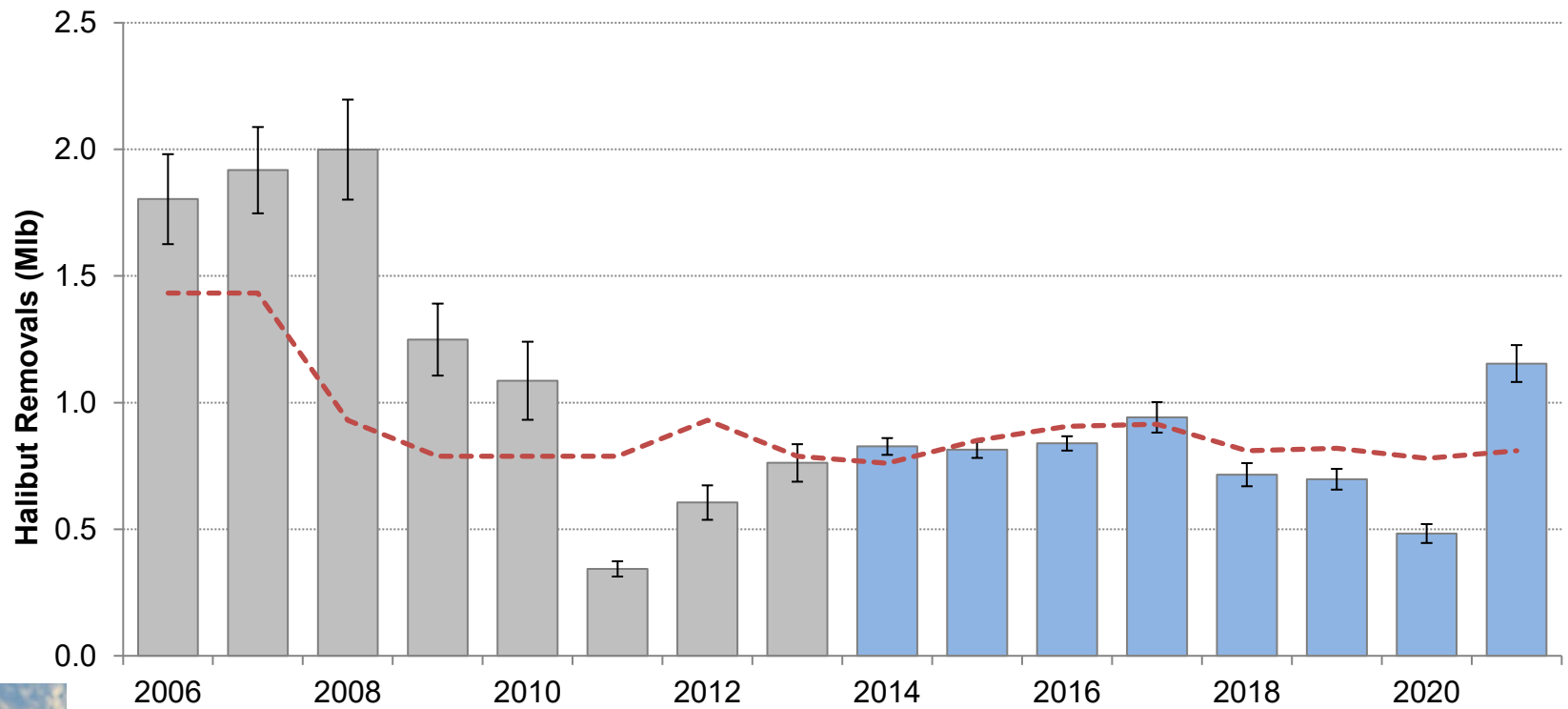
- One fish bag limit
- Reverse slot size limit of less than or equal to 50 inches or greater than or equal to 72 inches

3A –

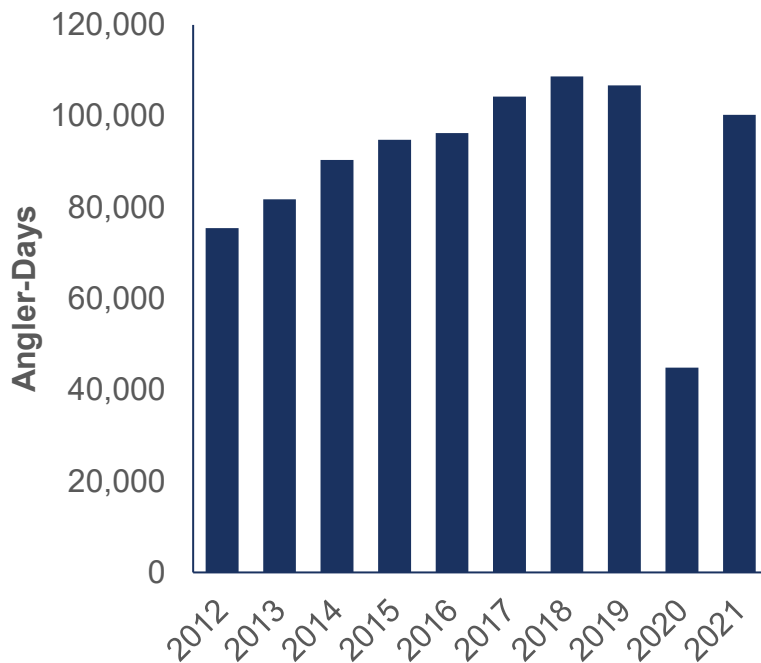
- Two fish bag limit: one fish of any size, one fish less than or equal to 32 inches
- One trip per vessel per day and per charter halibut permit per day
- Wednesdays closed to retention of halibut



2C CHARTER HALIBUT REMOVALS



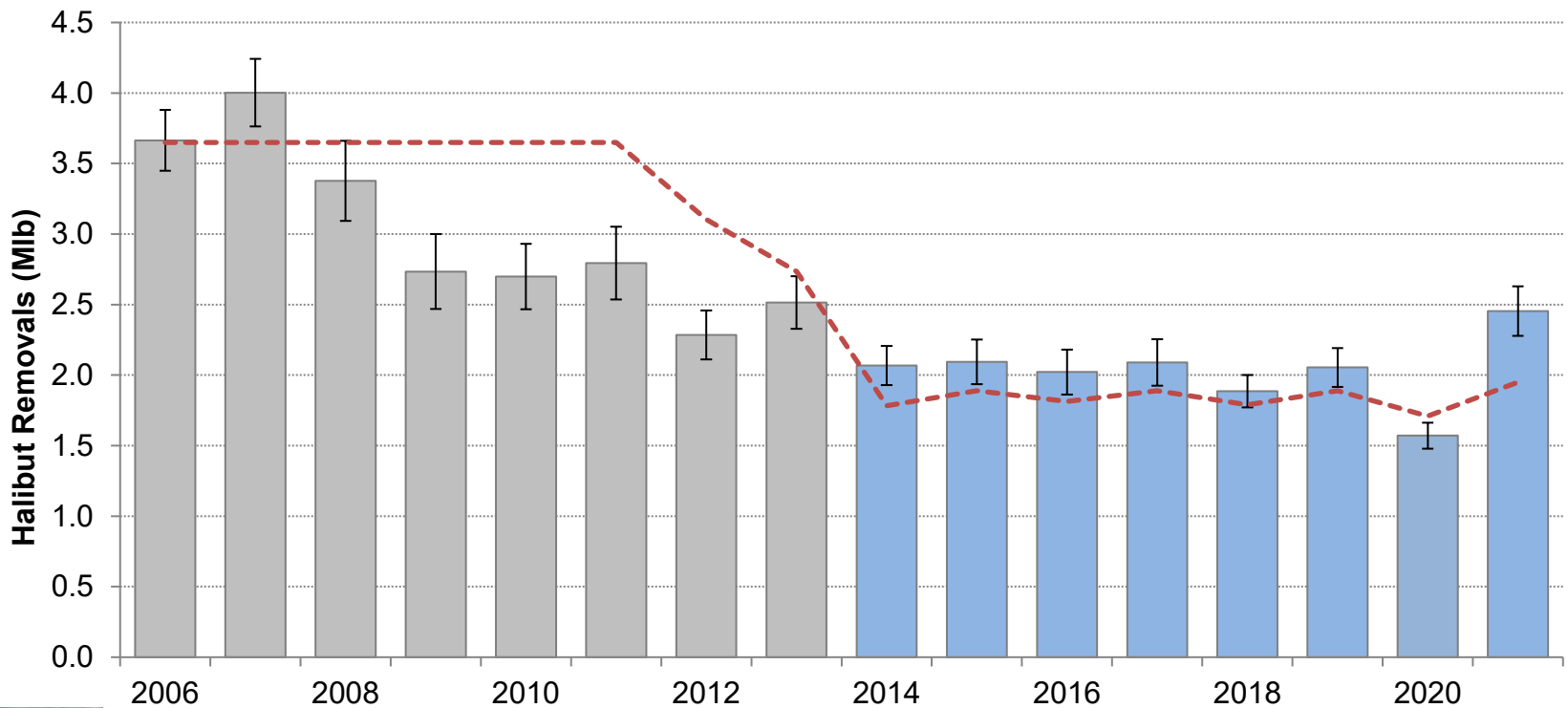
2C EFFORT



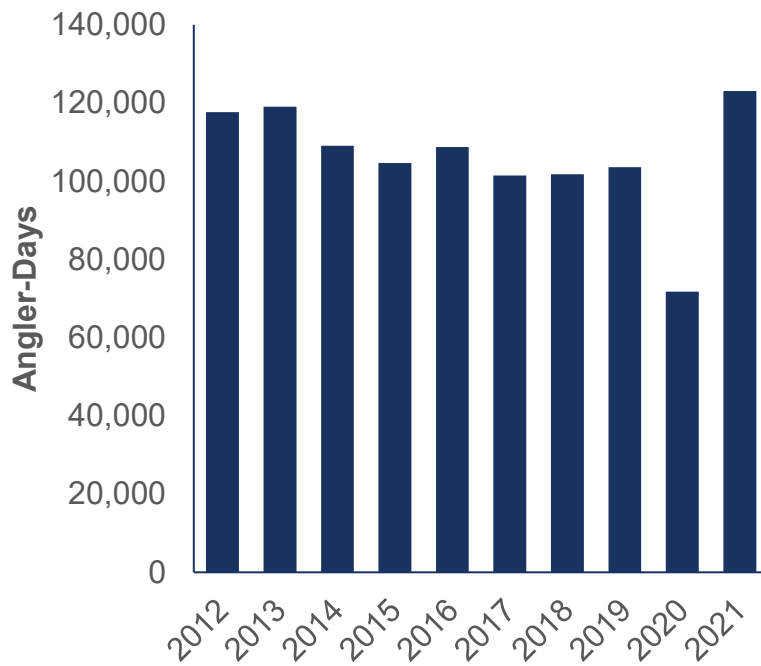
- 123% increase in angler-days from 2020 to 2021
- Variable by subarea – some still considerably below 2019, others similar to 2019



3A CHARTER HALIBUT REMOVALS



3A EFFORT



- 72% increase in effort from 2020 to 2021
- Up from 2019 in most Subareas; some Subareas saw substantial increases



BUSINESSES AND VESSELS HARVESTING HALIBUT

2C

	Businesses	Vessels
2012	255	498
2013	250	501
2014	246	520
2015	241	515
2016	248	532
2017	248	537
2018	244	534
2019	256	545
2020	192	386
2021	227	492

3A

	Businesses	Vessels
2012	284	405
2013	255	386
2014	259	399
2015	250	407
2016	240	388
2017	227	374
2018	232	391
2019	226	399
2020	203	343
2021	225	384



ANALYSIS OF MANAGEMENT MEASURES FOR 2022



CHARTER ALLOCATION FOR 2022

- Allocations are currently unknown
- Reference allocations based on IPHC's interim management procedure
- Should have contingencies for higher or lower allocations

	Reference Allocation	2021 Allocation
2C	0.60	0.81
3A	2.05	1.95



2C – STATUS QUO FORECAST

- All forecasts under “normal” conditions
- 72,865 halibut
 - 95% confidence interval 60,075 – 81,655 halibut
 - Effort used data from 2009 – 2019 and 2021
 - Except for Juneau and Ketchikan where 2021 was excluded
 - 2020 excluded from all forecasts
 - HPUE used data through 2019
 - Substantial increases in 2020 and 2021, likely related to changes in size limits and changes to fleet dynamics due to COVID-19
 - Including these years increases projection to 81,800 halibut \pm 8,766 fish
- Figure 2



2C – STATUS QUO FORECAST

Status Quo Regulations:

- One fish bag limit
- Reverse slot limit of less than or equal to 50 or greater than or equal to 72 inches

**Status Quo
Regulations
Projection**

1.095 Mlb



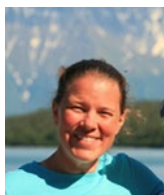
2C – MANAGEMENT MEASURES FOR 2022

- **Status quo (one fish bag limit with reverse slot limit allowing harvest of a fish less than or equal to 50 inches or greater than or equal to 72 inches)**
- Additional reverse slot limits, with lower limits of the protected slot ranging from 35 to 50 inches and upper limits ranging from 50 to 80 inches
- Additional reverse slot limits with lower limits of the protected slot ranging from 35 to 50 inches and an upper limit of 80 inches with a closed day of the week starting on September 17th and adding closed days to May 15th or for the entire season, analyzed for each day of the week.
- Additional reverse slot limit with lower limits of the protected slot ranging from 35 to 50 inches and an upper limit of 80 inches with a closed day of the week for the entire season (analyzed for each day of the week) and an additional closed day of the week starting on September 17th and adding closed days to May 15th or for the entire season, analyzed for each day of the week.
- Annual limits of two to four fish, in combination with each of the above options



2C – SUMMARY

Management Measures	Options Below Reference Allocation (0.60 Milb)?	Options Below 2021 Allocation (0.81 Milb)?
Status Quo (reverse slot with lower limit of 50 inches and upper limit of 72 inches)	No	No
Additional reverse slot limits, with lower limits of the protected slot ranging from 35 to 50 inches and upper limits ranging from 50 to 80 inches	No	Yes
Additional reverse slot limits with lower limits of the protected slot ranging from 35 to 50 inches and an upper limit of 80 inches with a closed day of the week starting on September 17th and adding closed days to May 15th or for the entire season, analyzed for each day of the week.	Yes	Yes
Additional reverse slot limit with lower limits of the protected slot ranging from 35 to 50 inches and an upper limit of 80 inches with a closed day of the week for the entire season (analyzed for each day of the week) and an additional closed day of the week starting on September 17th and adding closed days to May 15th or for the entire season, analyzed for each day of the week.	Yes	Yes
Additional reverse slot limits, with lower limits of the protected slot ranging from 35 to 50 inches and upper limits ranging from 50 to 80 inches with annual limits of two to four fish	Yes	Yes
Additional reverse slot limits with lower limits of the protected slot ranging from 35 to 50 inches and an upper limit of 80 inches with a closed day of the week starting on September 17th and adding closed days to May 15th or for the entire season, analyzed for each day of the week, with annual limits of two to four fish	Yes	Yes



2C – IMPLEMENTATION CONSIDERATIONS AND SUMMARY

- Day of the week closures
- Annual limits
- A lot of uncertainty in harvest forecasts for 2022
- Recommend more specific requests for future analyses
- Many options within likely range of allocations for 2022
- Management measures will need to be more restrictive than 2021



3A – STATUS QUO FORECAST

- All forecasts under “normal” conditions
- 164,382 halibut
 - 95% confidence interval 136,222 – 192,542 halibut
 - Used 2021 effort for forecasts
 - HPUE used data through 2019
 - Substantial increases in 2020 and 2021, likely related to changes in size limits and may also have been impacted by removal of annual limit
 - Including these years increases projection to 184,254 halibut \pm 11,027 fish
- Figure 3



3A – STATUS QUO FORECAST

Status Quo Regulations:

- Two fish bag limit: one any size, one less than or equal to 32 inches
- One trip per vessel per day and per charter halibut permit per day
- Wednesdays closed to retention of halibut

**Status Quo
Regulations
Projection**

2.302



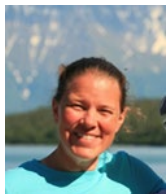
3A – MANAGEMENT MEASURES FOR 2022

- **Status quo (two-fish bag limit with a 32-inch maximum size limit on one fish, one trip per vessel and one trip per CHP per day, and a Wednesday closure all year)**
- Additional size limits on one fish ranging from 26 to 32 inches combined with one or more Tuesday closures from June 1st to August 31st or for the entire season
- Additional size limits on one fish ranging from 26 to 32 inches with Tuesdays closed for the entire season combined with one or more Monday or Thursday closures from June 1st to August 31st or for the entire season
- Additional size limits on one fish ranging from 26 to 32 inches combined with annual limits of two to four fish
- Additional size limits on one fish ranging from 26 to 32 inches combined with annual limits of two to four fish and one or more Tuesday closures from June 1st to August 31st or for the entire season
- A one-fish bag limit with no size limit with or without a Wednesday closure for the entire season
- A one-fish bag limit with reverse slot limits with lower limits of the protected slot ranging from 35 to 60 inches and upper limits ranging from 60 to 80 inches combined with one or more Wednesday closures from June 1st to August 31st or for the entire season or all Wednesdays closed with one or more Tuesday closures from June 1st to August 31st or for the entire season
- A seasonal closure prior to May 16th and after July 31st or prior to June 1st and after July 31st with all days of the week open and other status quo management measures



3A – SUMMARY

Management Measures	Options Below Reference Allocation (2.05 Mlb)?	Options Below 2021 Allocation (1.95 Mlb)?
Status quo (two-fish bag limit with a 32-inch maximum size limit on one fish, one trip per vessel and one trip per CHP per day, and a Wednesday closure all year)	No	No
Additional size limits on one fish ranging from 26 to 32 inches combined with one or more Tuesday	Yes	Yes
Additional size limits on one fish ranging from 26 to 32 inches with Tuesdays closed for the entire season combined with one or more Monday or Thursday closures	Yes	Yes
Additional size limits on one fish ranging from 26 to 32 inches combined with annual limits of two to four fish	Yes	Yes
Additional size limits on one fish ranging from 26 to 32 inches combined with annual limits of two to four fish and one or more Tuesday	Yes	Yes
A one-fish bag limit with no size limit with or without a Wednesday closure for the entire season	Maybe	No
A one-fish bag limit with reverse slot limits with lower limits of the protected slot ranging from 35 to 60 inches and upper limits ranging from 60 to 80 inches combined with one or more Wednesday closures or all Wednesdays closed with one or more Tuesday closures	Yes	Yes
A seasonal closure prior to May 16th and after July 31st or prior to June 1st and after July 31st with all days of the week open	Yes	Yes



3A – IMPLEMENTATION CONSIDERATIONS AND SUMMARY

- Day of the week closures
- Annual limits
- One fish bag limit with no size limit
- Release mortality
- A lot of uncertainty in harvest forecasts for 2022
- Recommend more specific requests for future analyses
- Many options within likely range of allocations for 2022
- Management measures will need to be more restrictive than 2021



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- Bob Powers and Ben Jevons – co-authors, logbook data summaries, and review
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- Martin Schuster and Marian Ford – Southcentral data
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- Sarah Marrinan – Council Staff

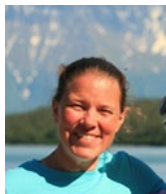
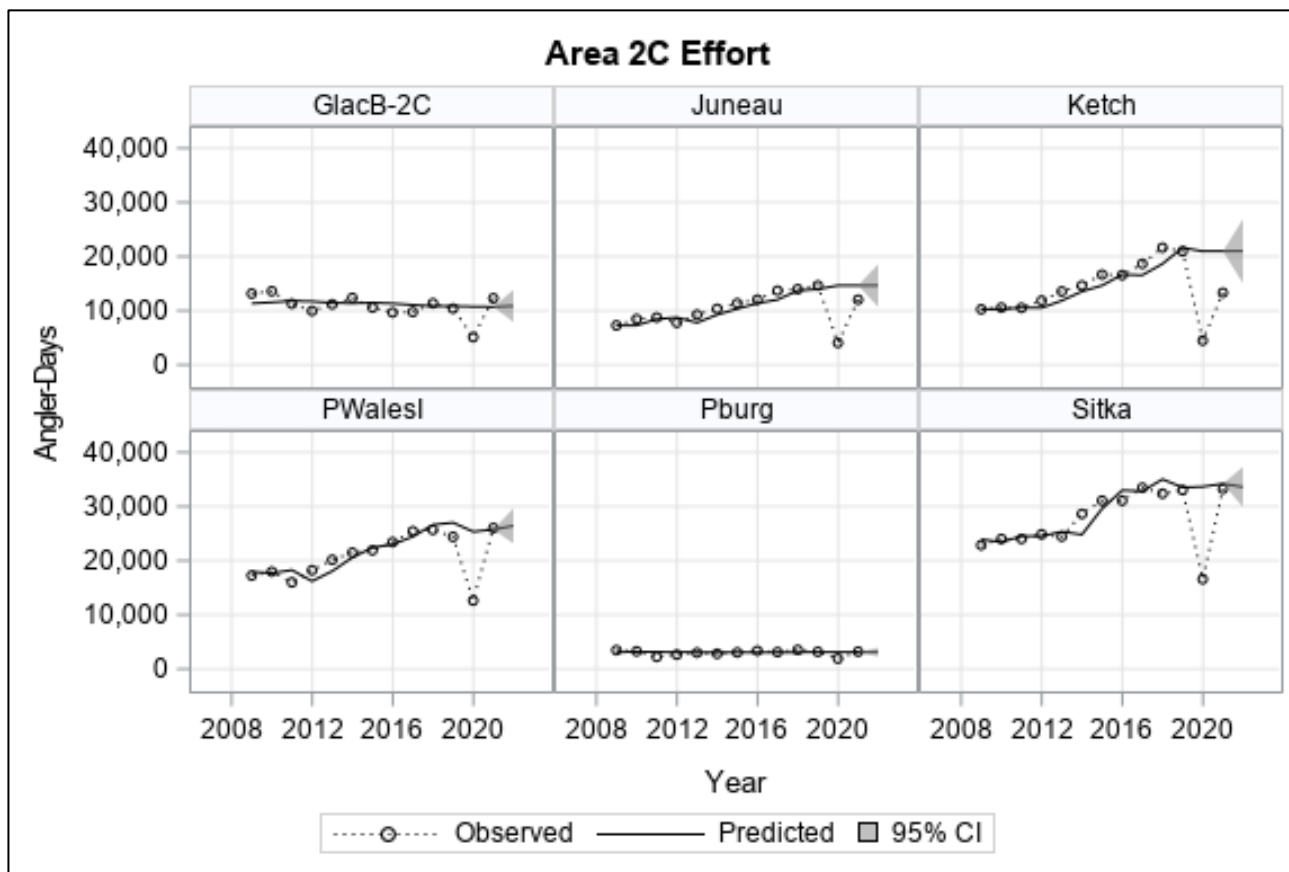
- Funding:
 - State of Alaska General Funds
 - DJ-WB Federal Aid in Fish Restoration
 - Fish and Game Fund



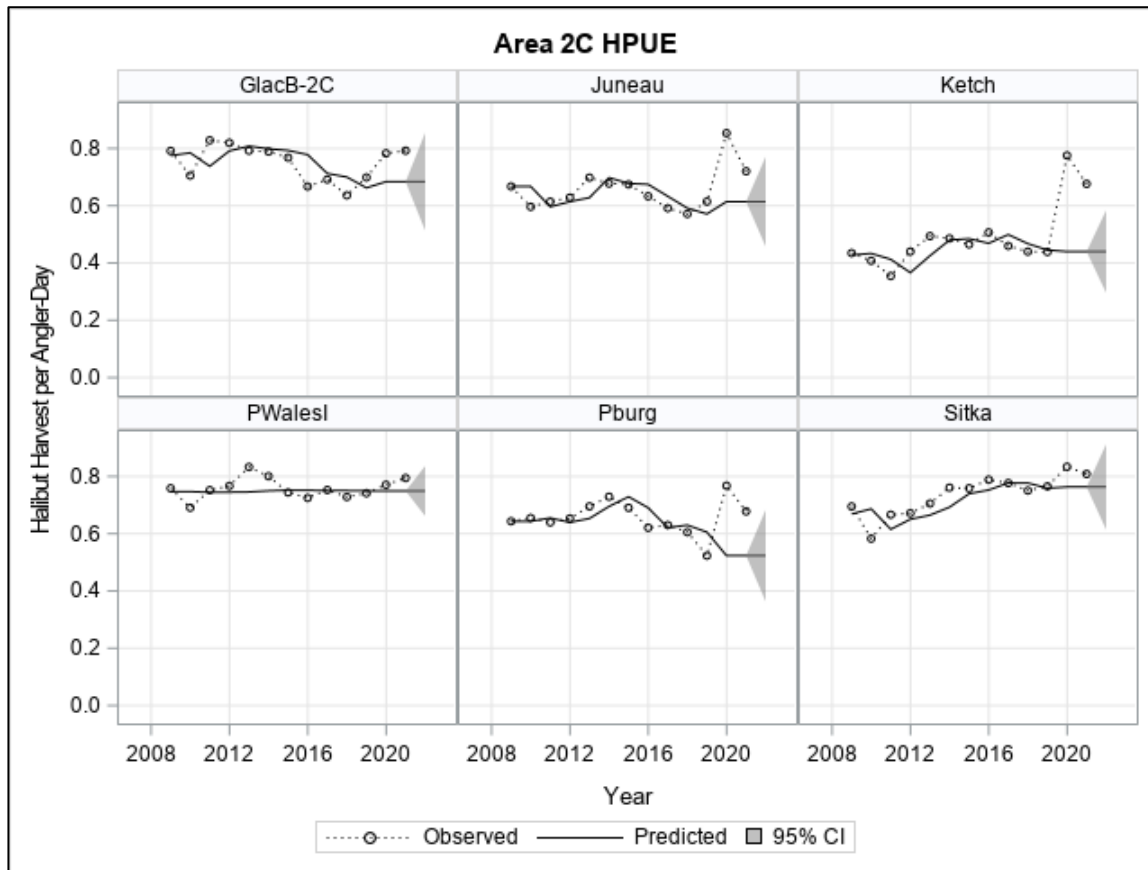
EXTRA SLIDES



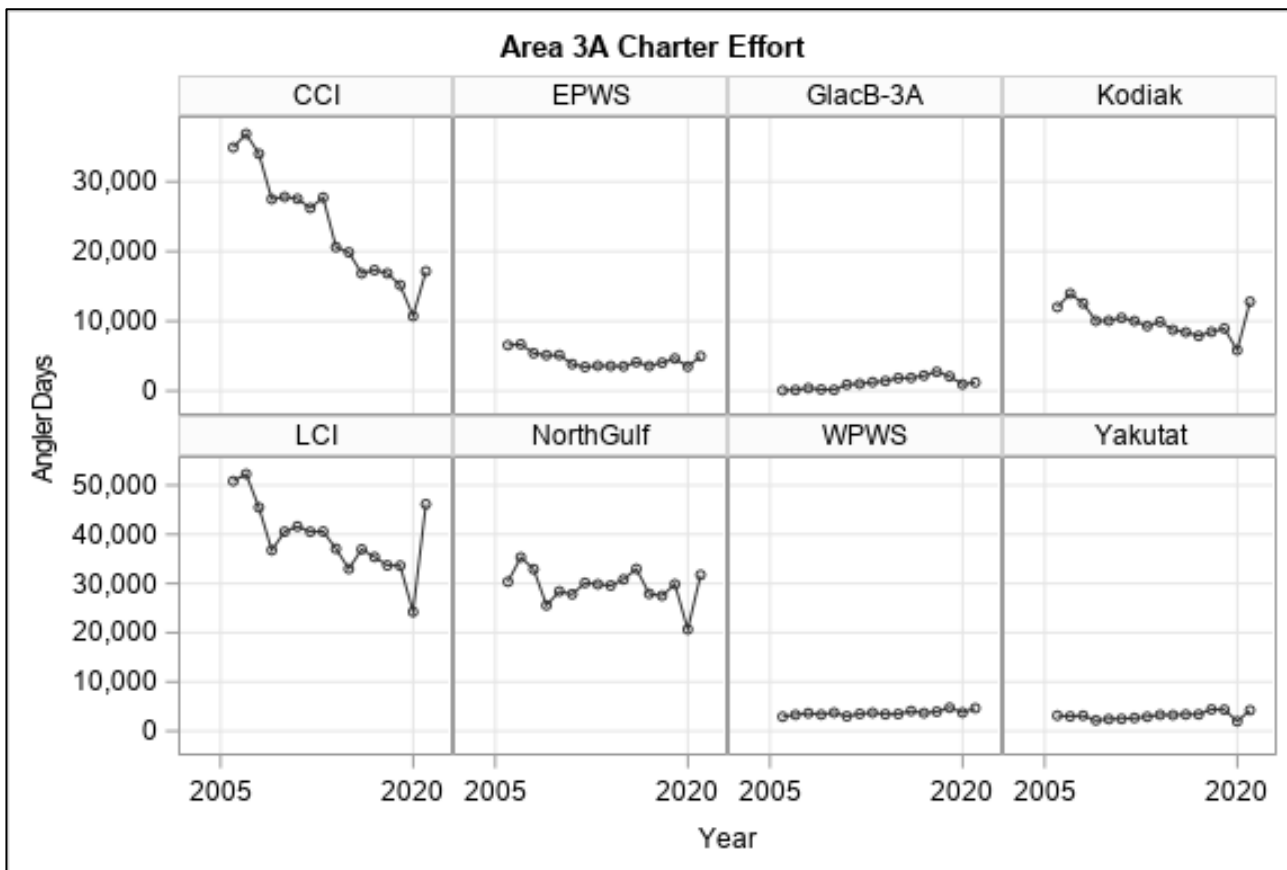
2C EFFORT FORECASTS



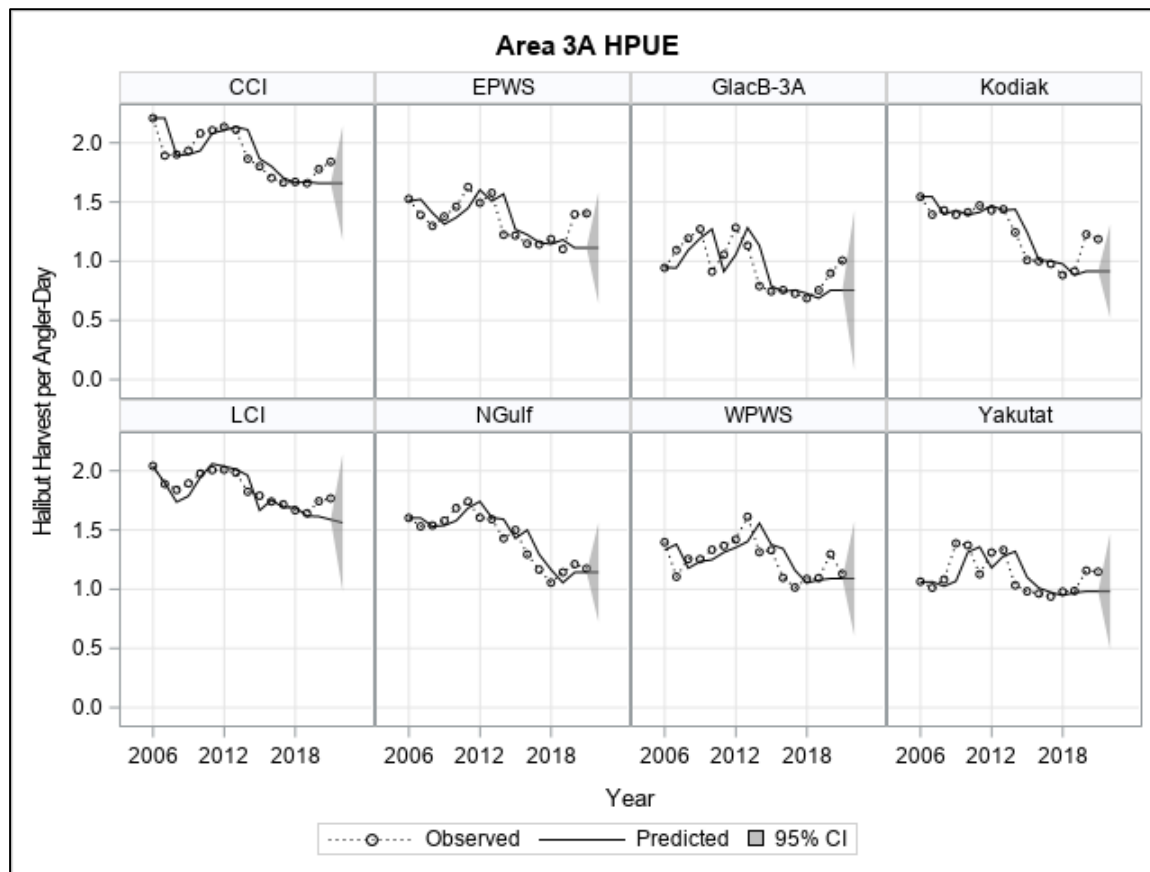
2C HPUE FORECASTS



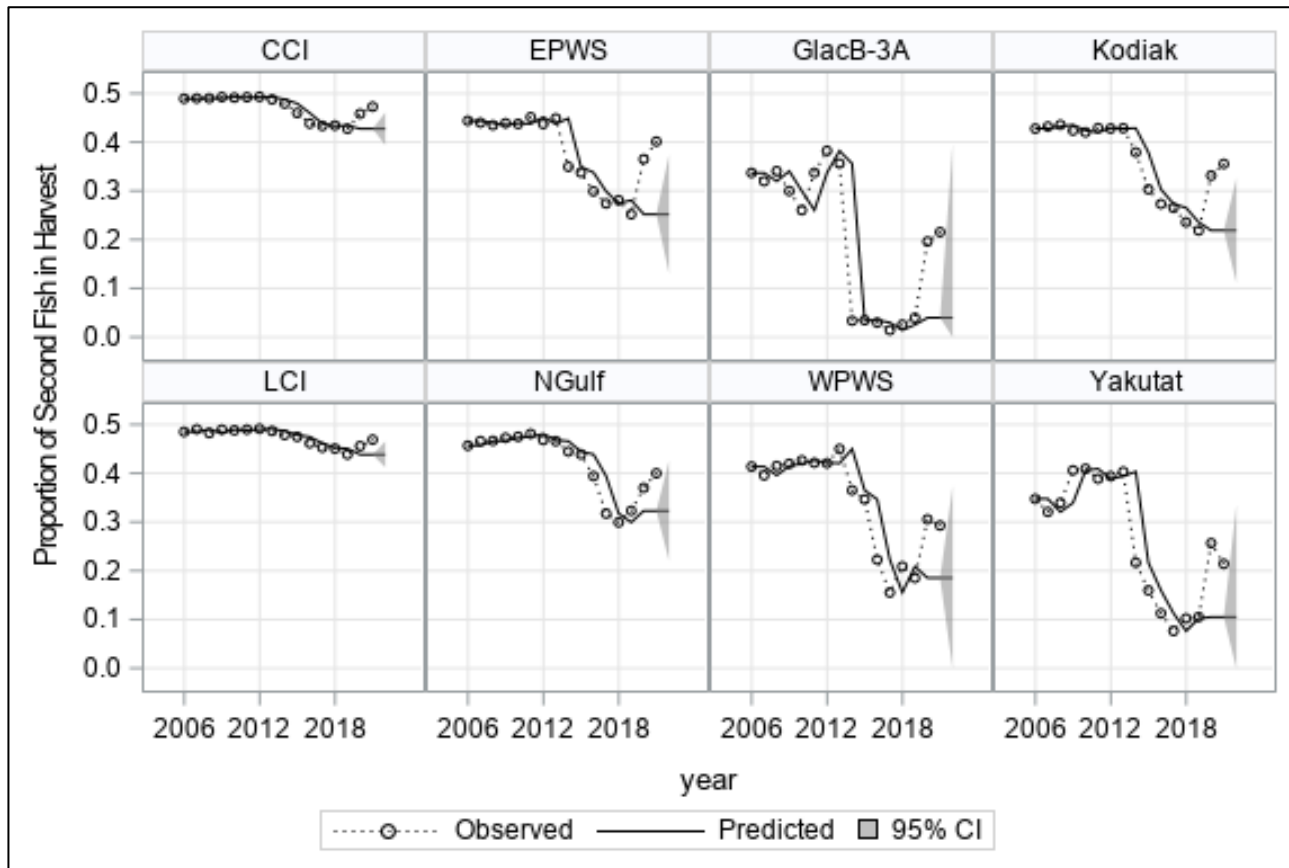
3A EFFORT FORECASTS



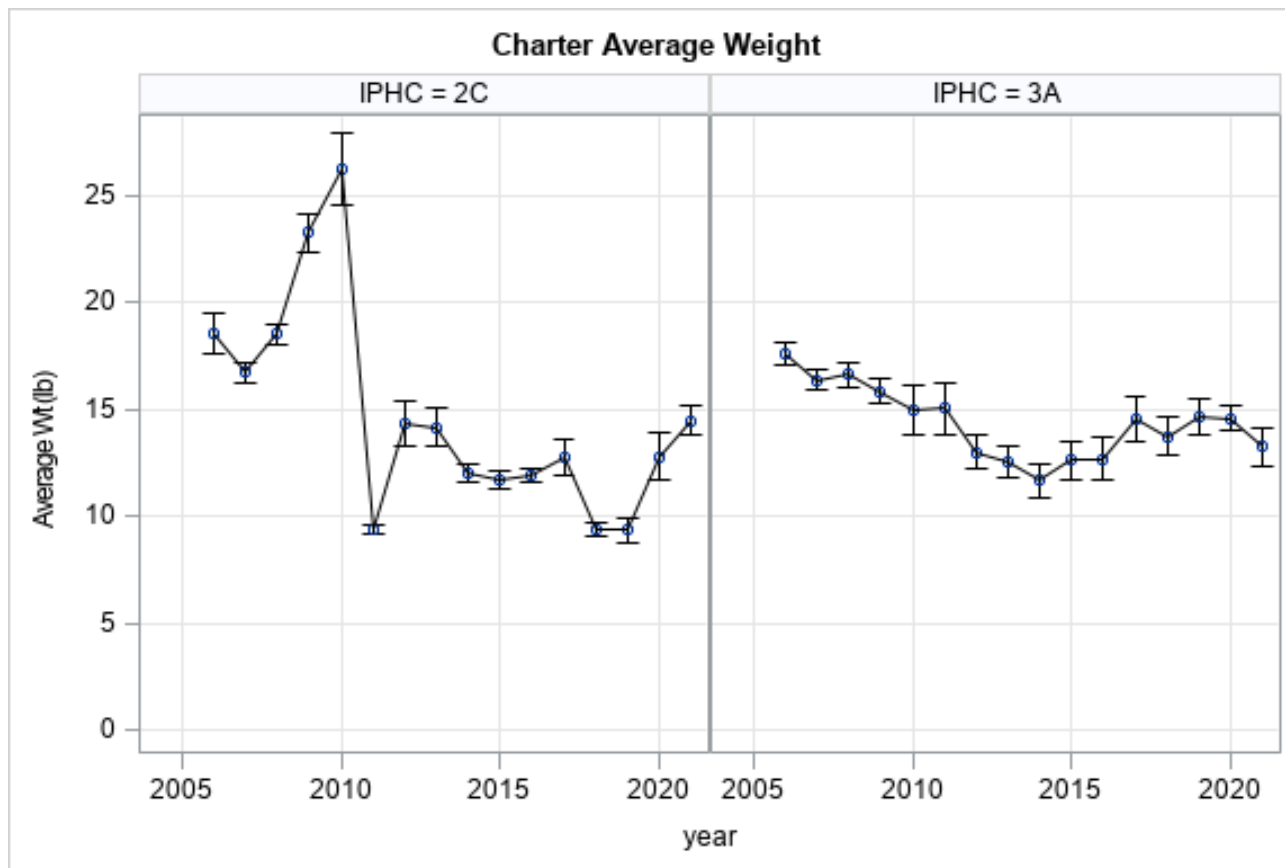
3A HPUE FORECASTS



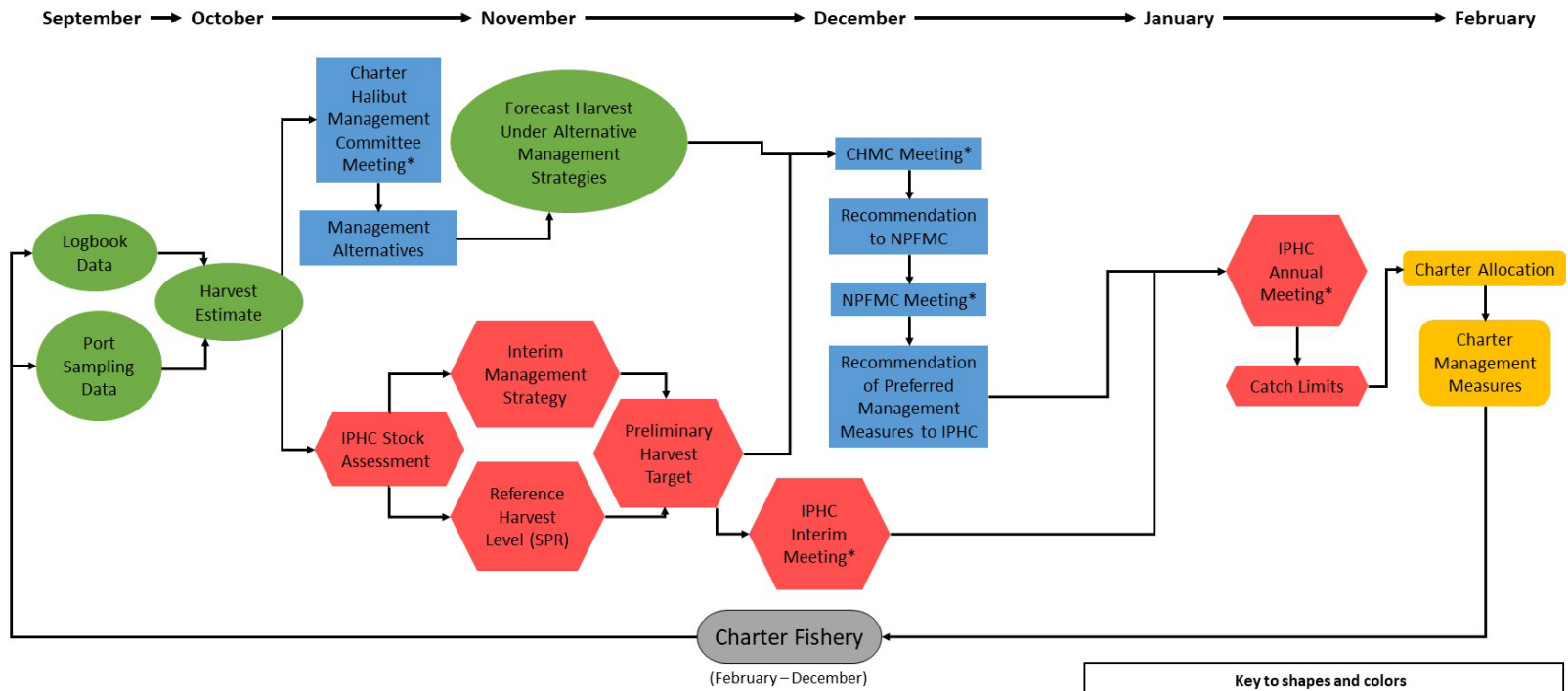
3A PROPORTION OF SECOND FISH FORECASTS



ESTIMATED MEAN WEIGHTS



CHARTER HALIBUT MANAGEMENT PROCESS



Key to shapes and colors

- ADFG (Green oval)
- NPFMC (Blue rectangle)
- IPHC (Red hexagon)
- NOAA Fisheries (Yellow rectangle)

*indicates opportunity for public comment

