



Fisheries and Oceans
Canada

Pêches et Océans
Canada

*Table by the Minister
of Fisheries, Forestry,
and Agriculture*

2022-05-31

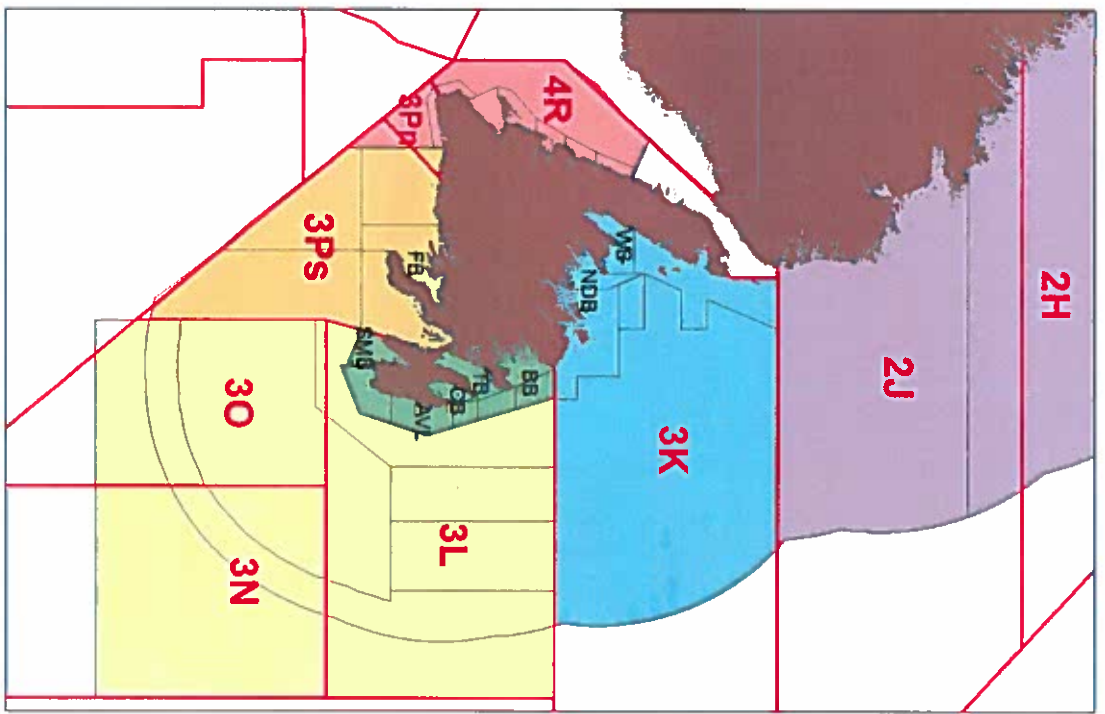
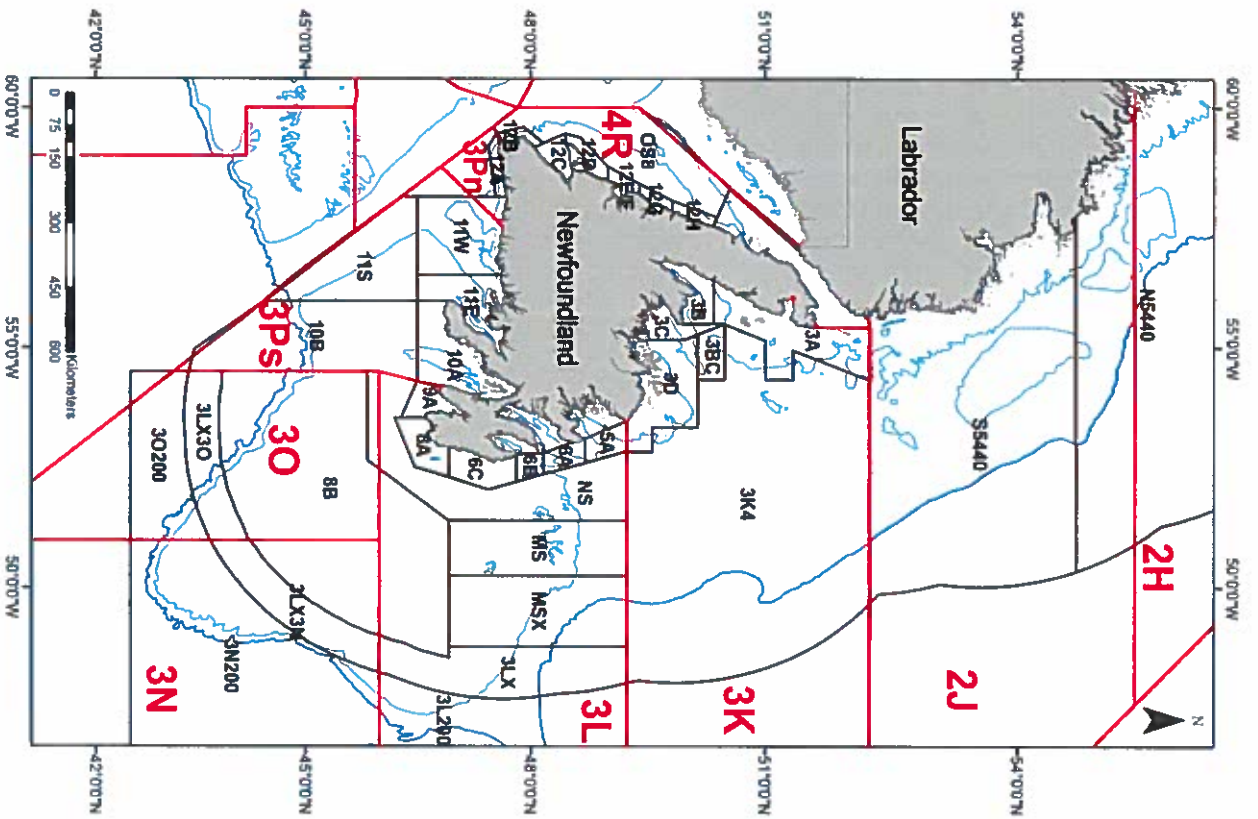
Boone

2HJ3KLNOP4R Snow Crab Fishery and Survey Summary

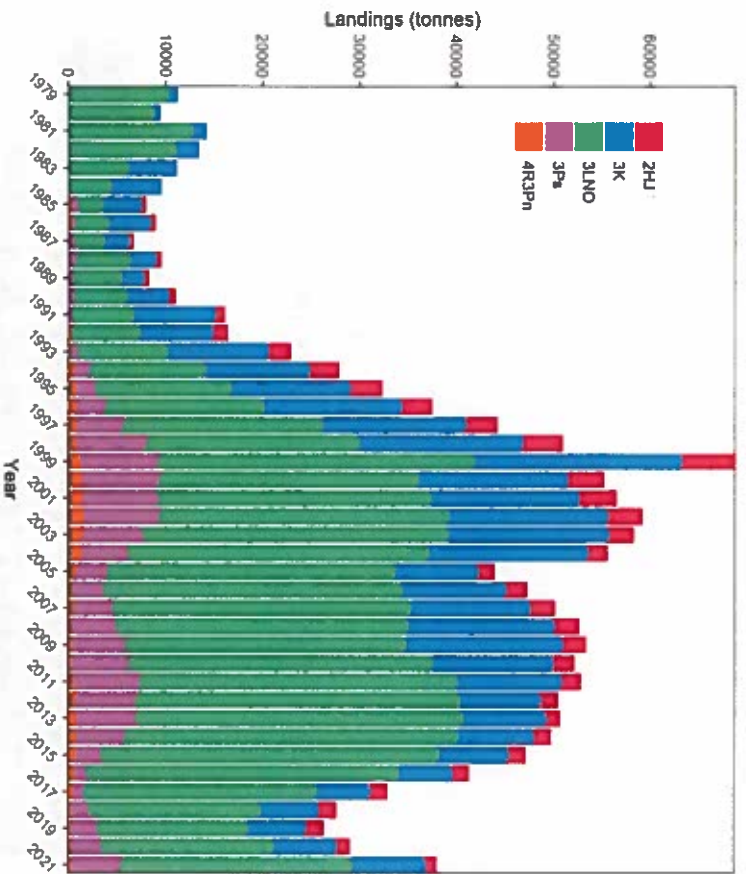
Fish Processing
Licensing Board

2022

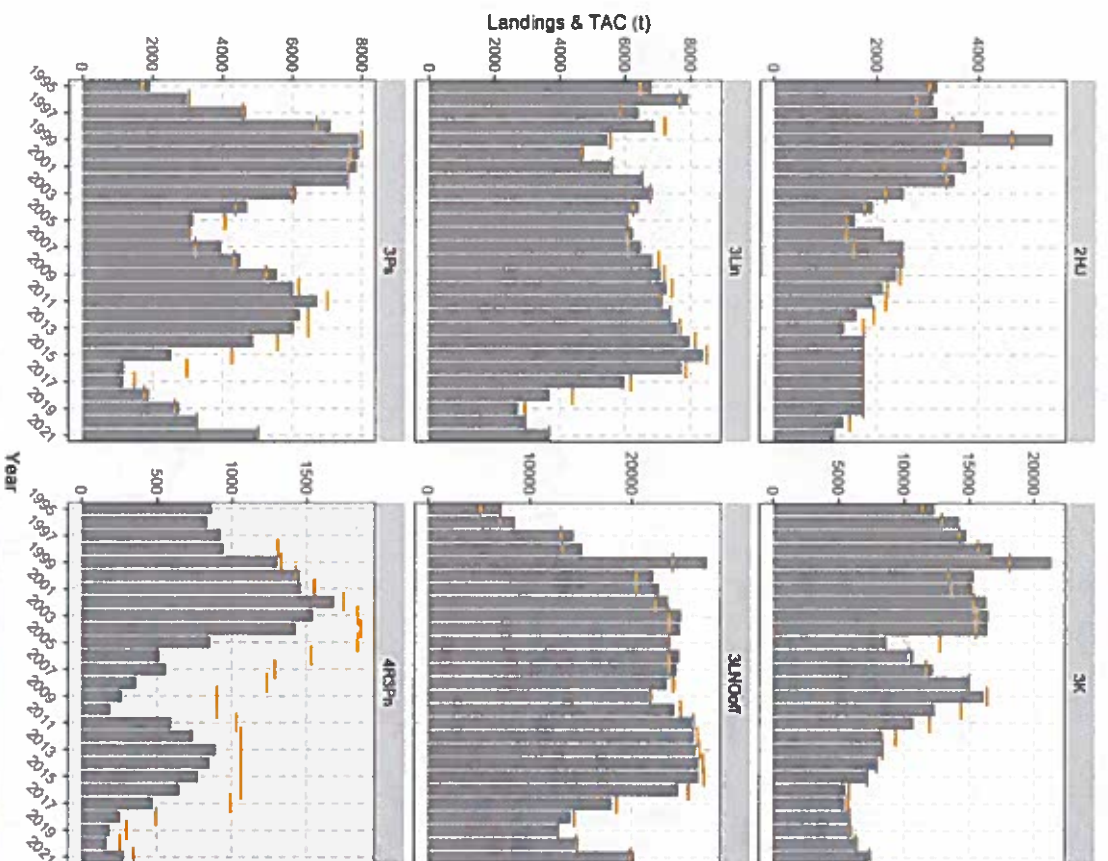




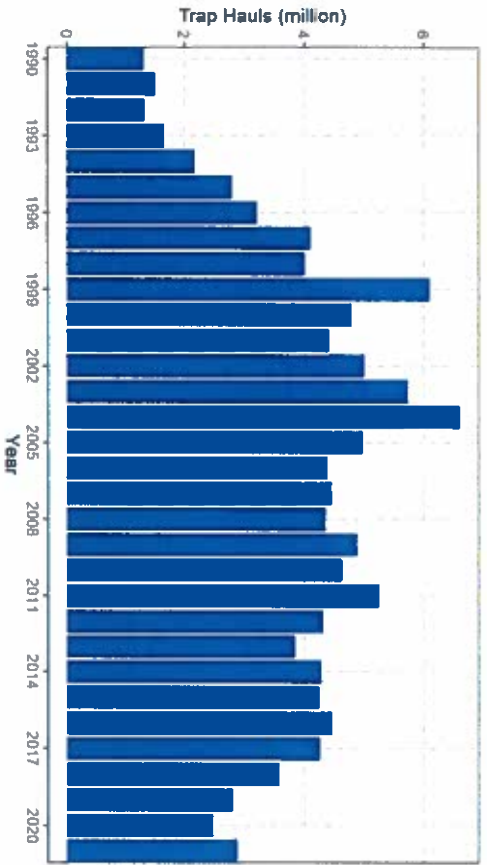
Landings



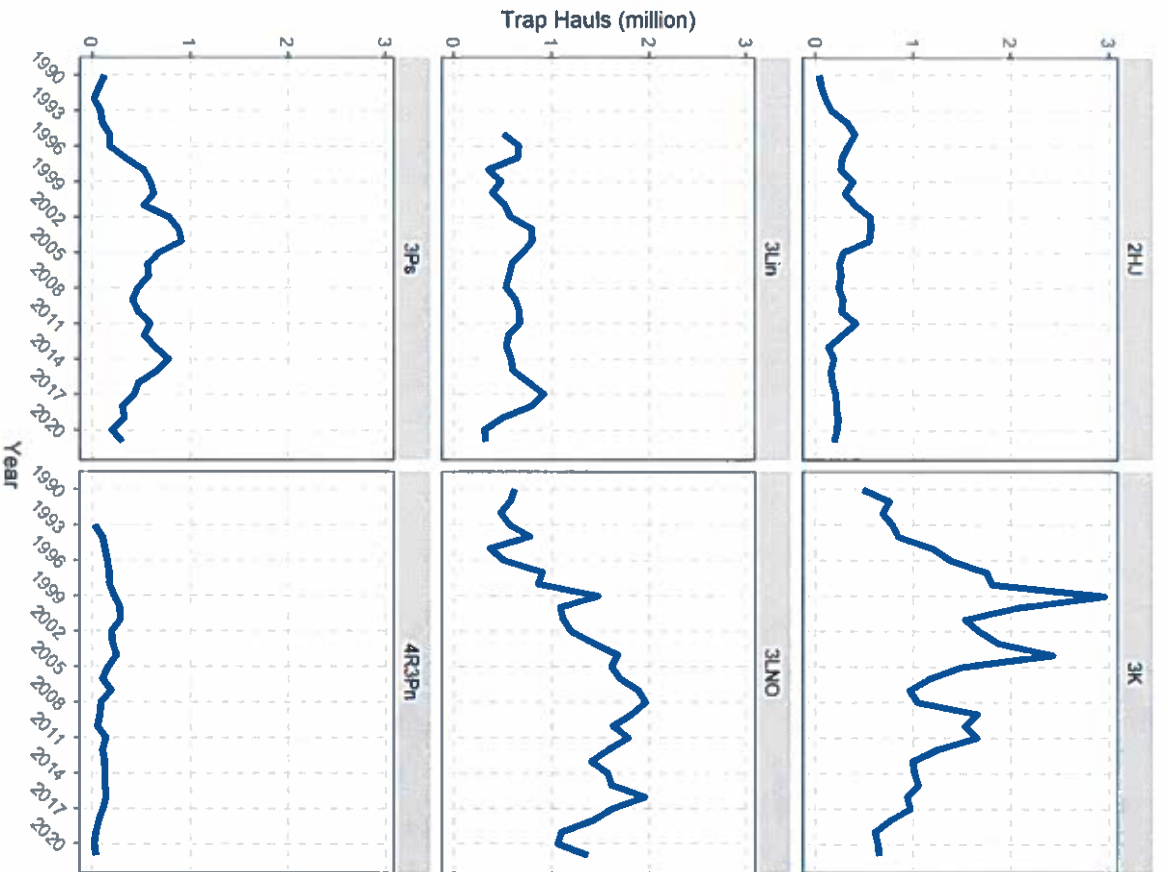
Landings declined to a 25 year low in 2019 but have increased in the last two years. Increases occurred in all ADs except 2HJ where there was a TAC reduction in 2021.



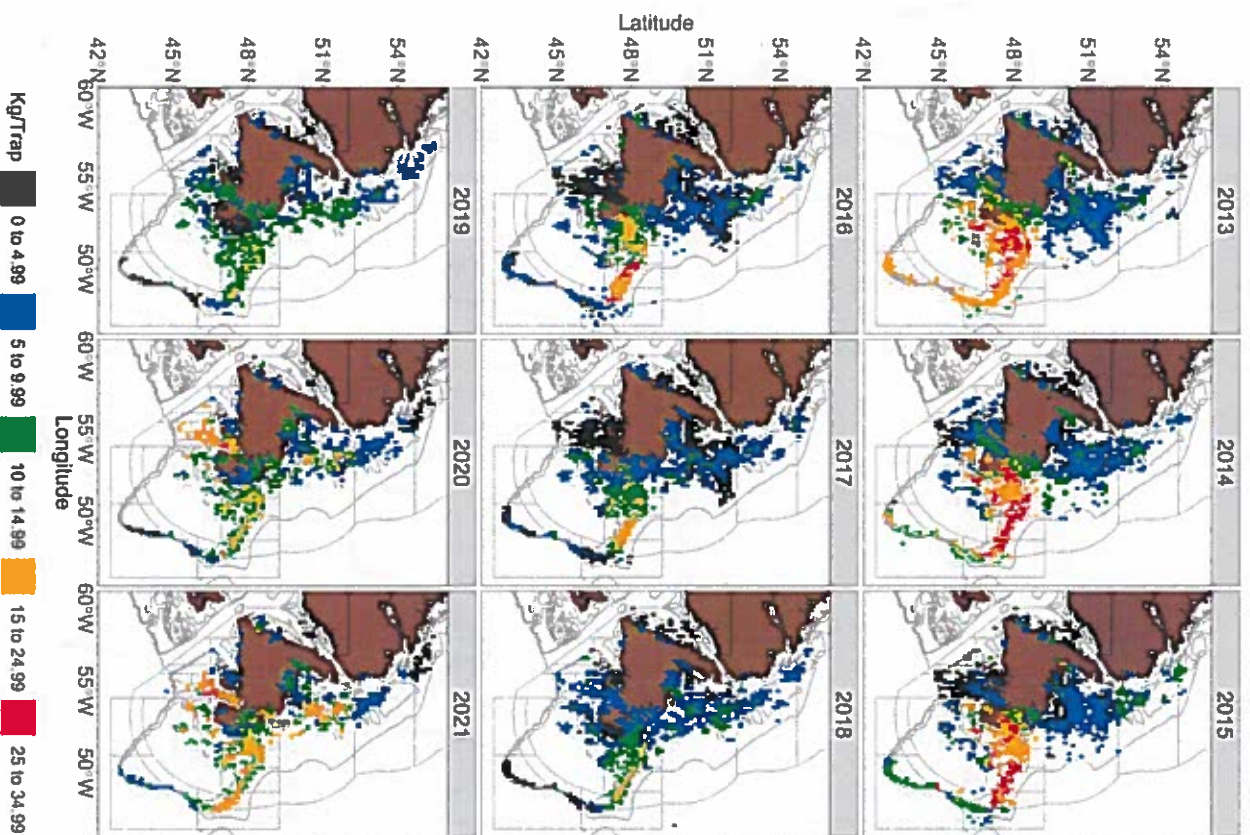
Effort



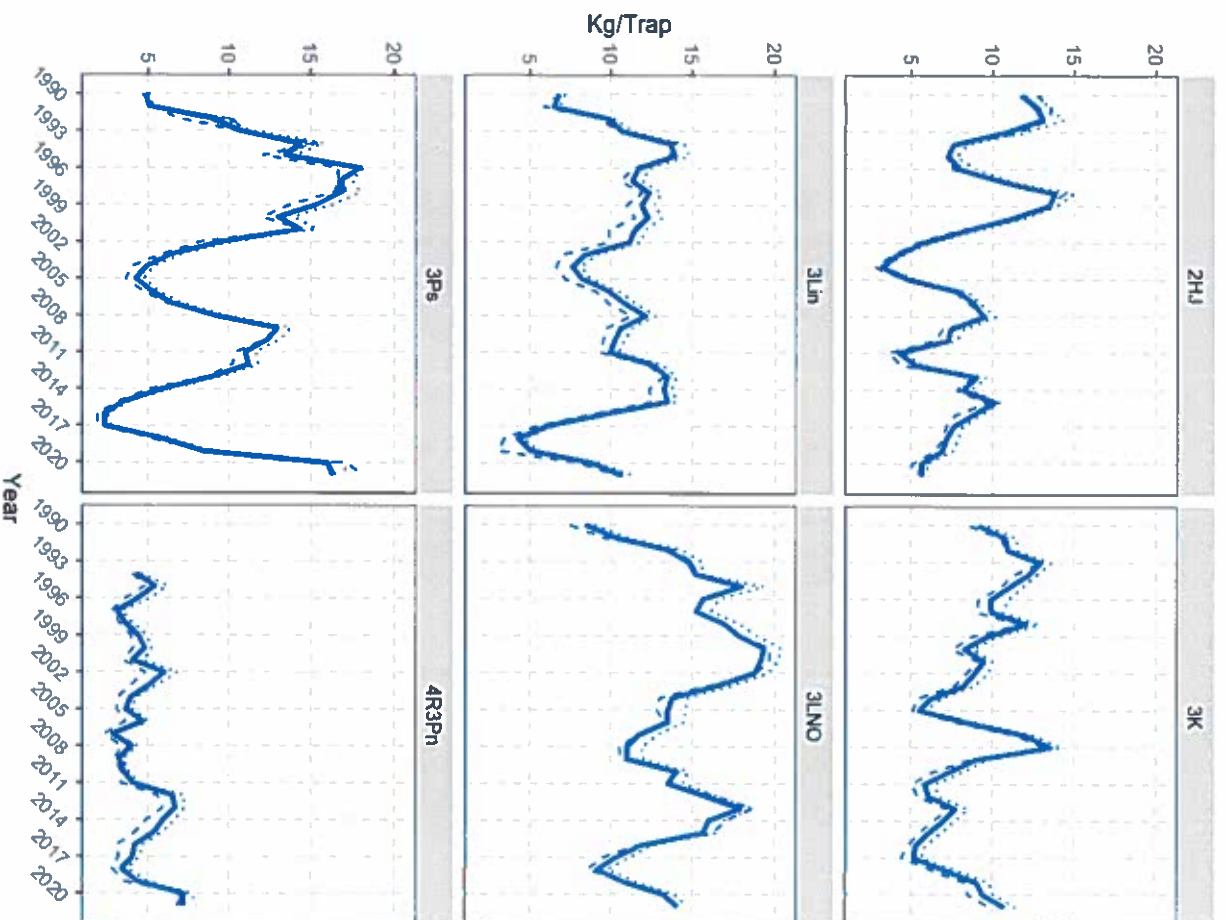
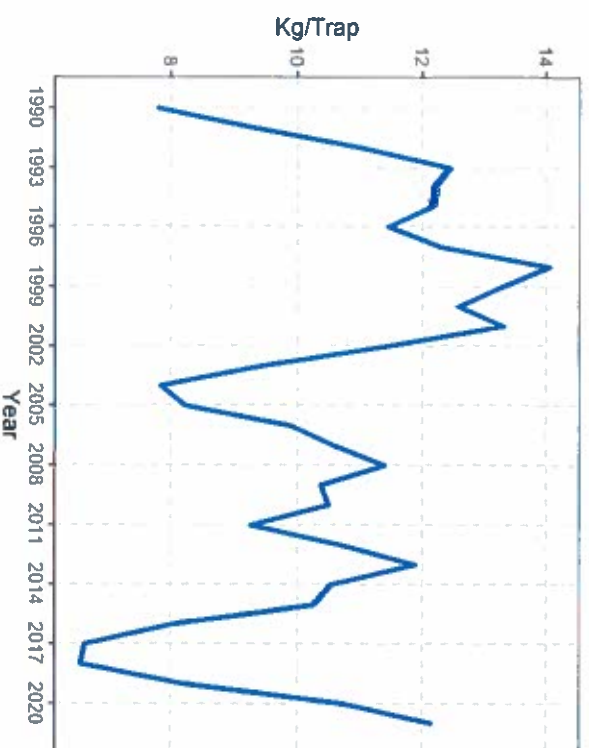
Overall **effort** increased slightly in 2021



Fishery CPUE



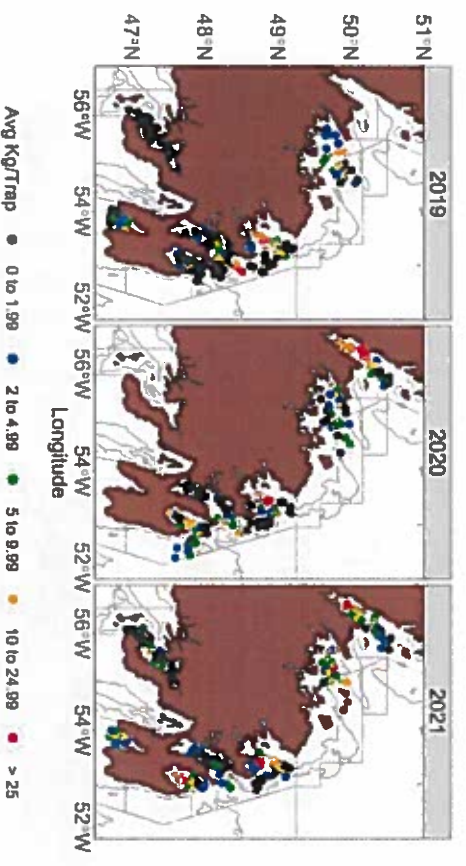
Fishery CPUE



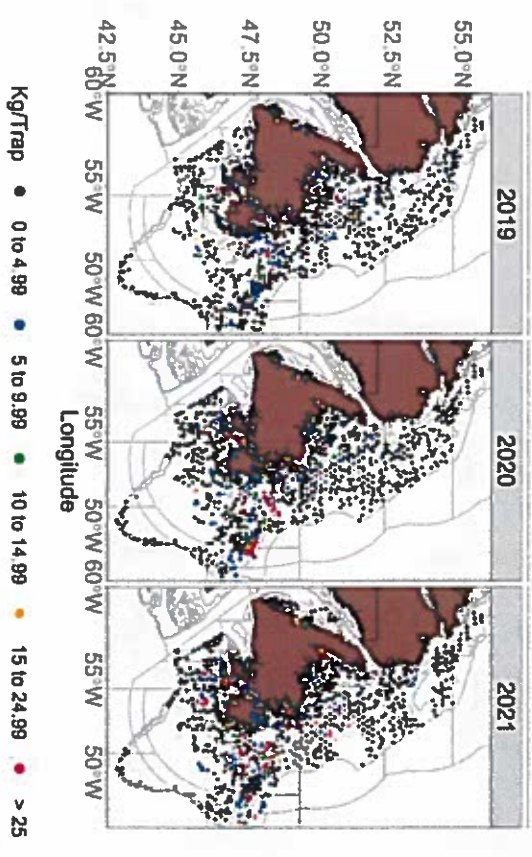
Overall stock **CPUE** increased to above the time-series average level in 2021.

Surveys

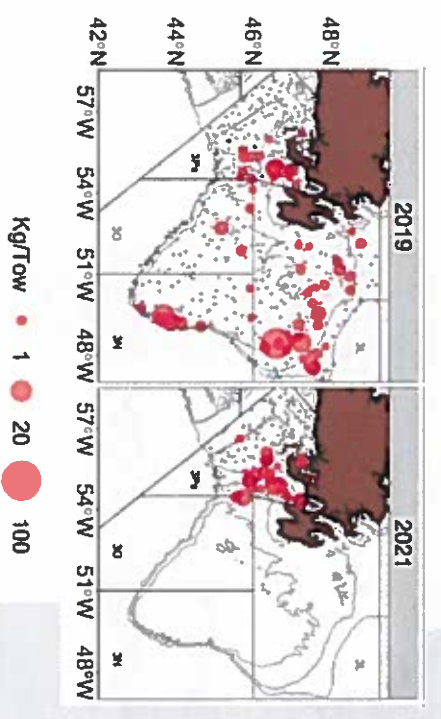
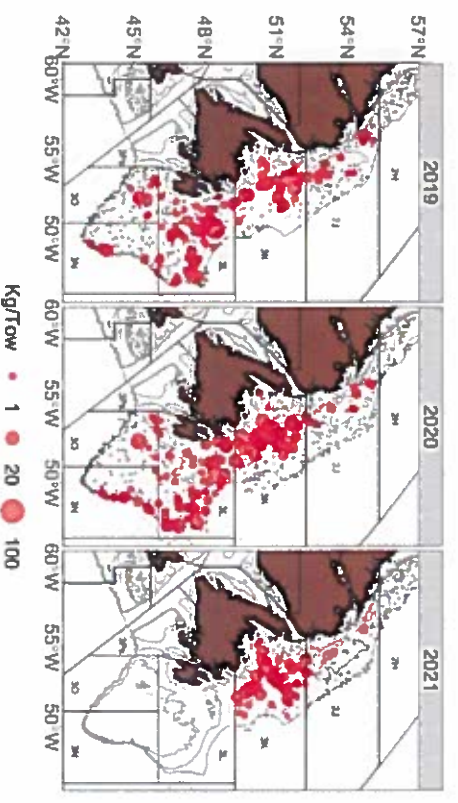
Trap – DFO Inshore Surveys



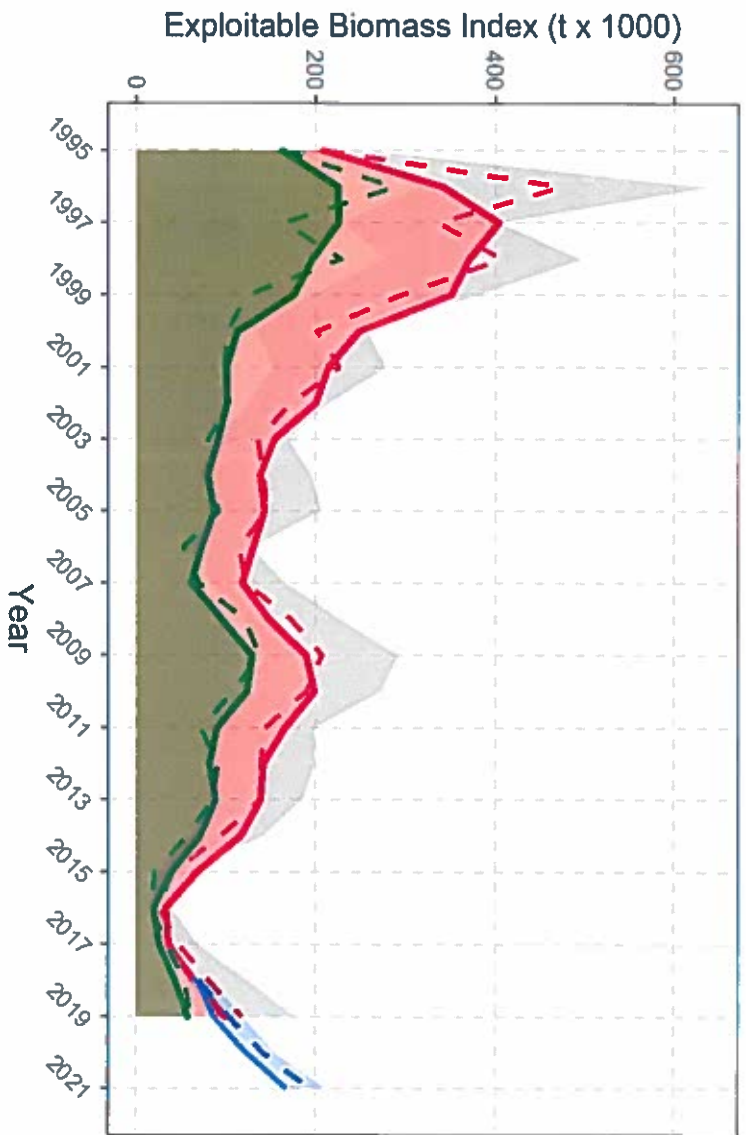
Trap – Collaborative Post-season Surveys



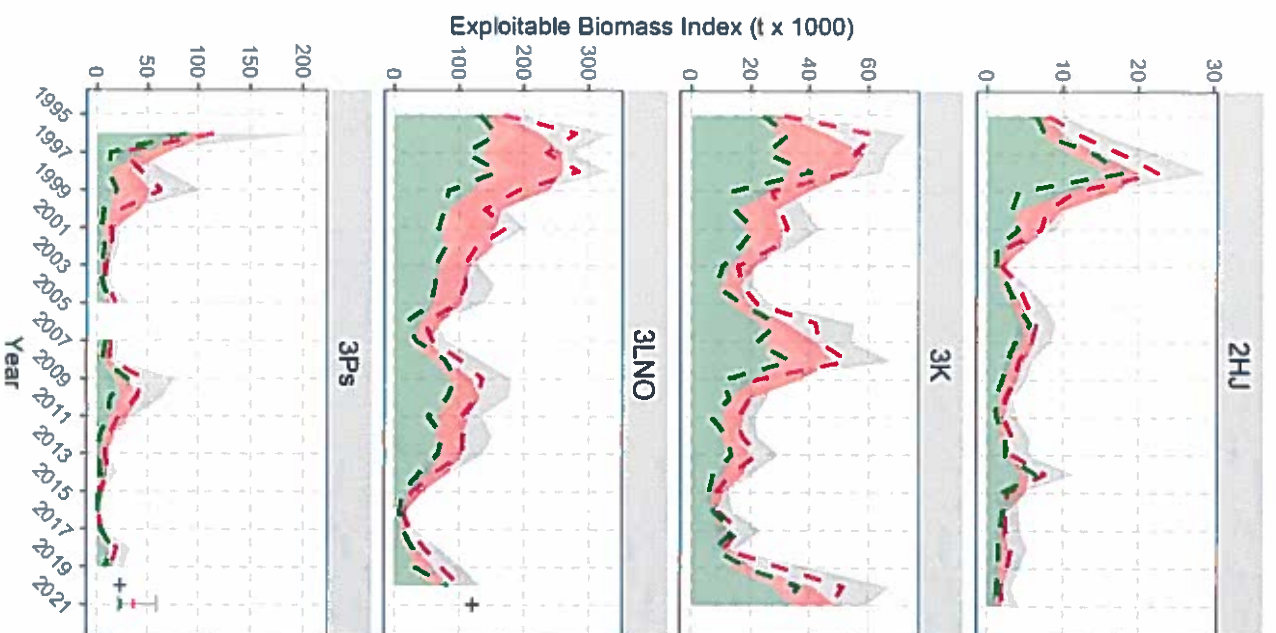
DFO Trawl Surveys



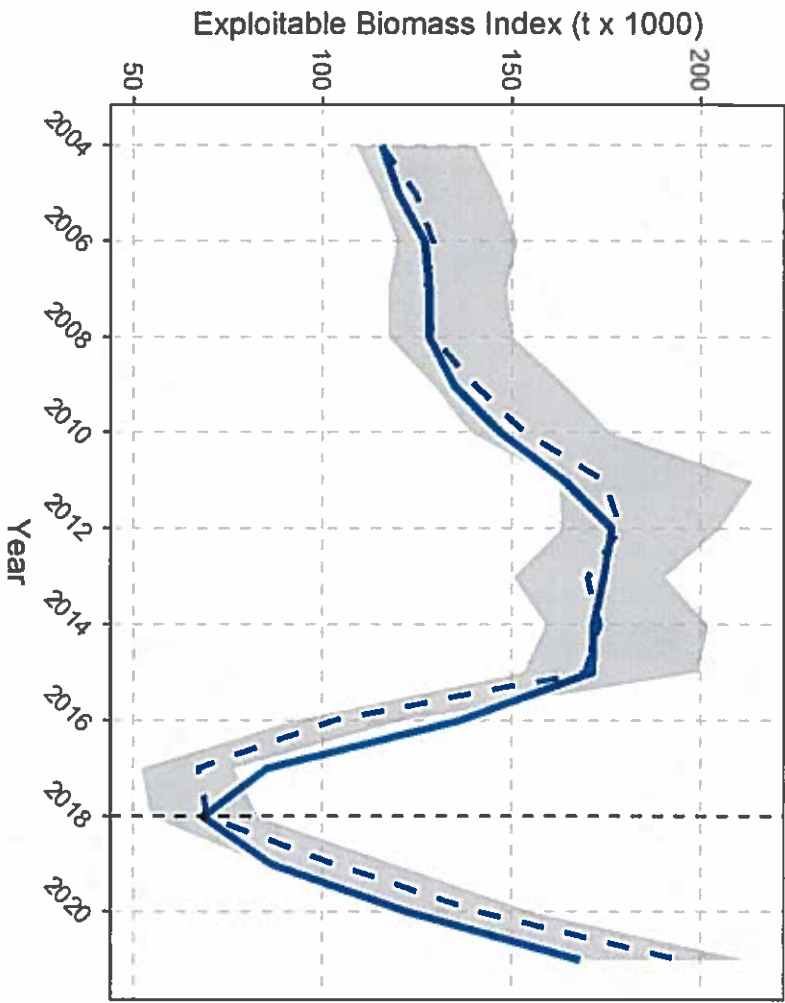
Biomass & Recruitment (Trawl)



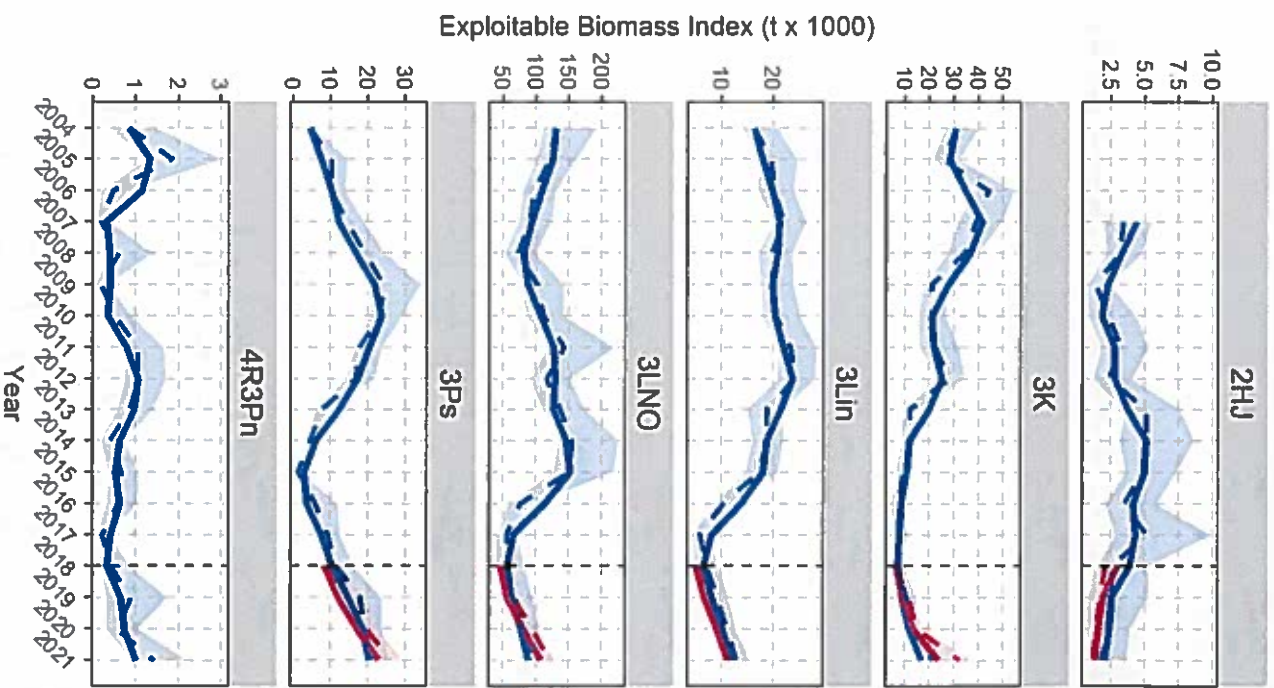
The overall **exploitable biomass index** has increased during the past 4-5 years.



Biomass (Traps)

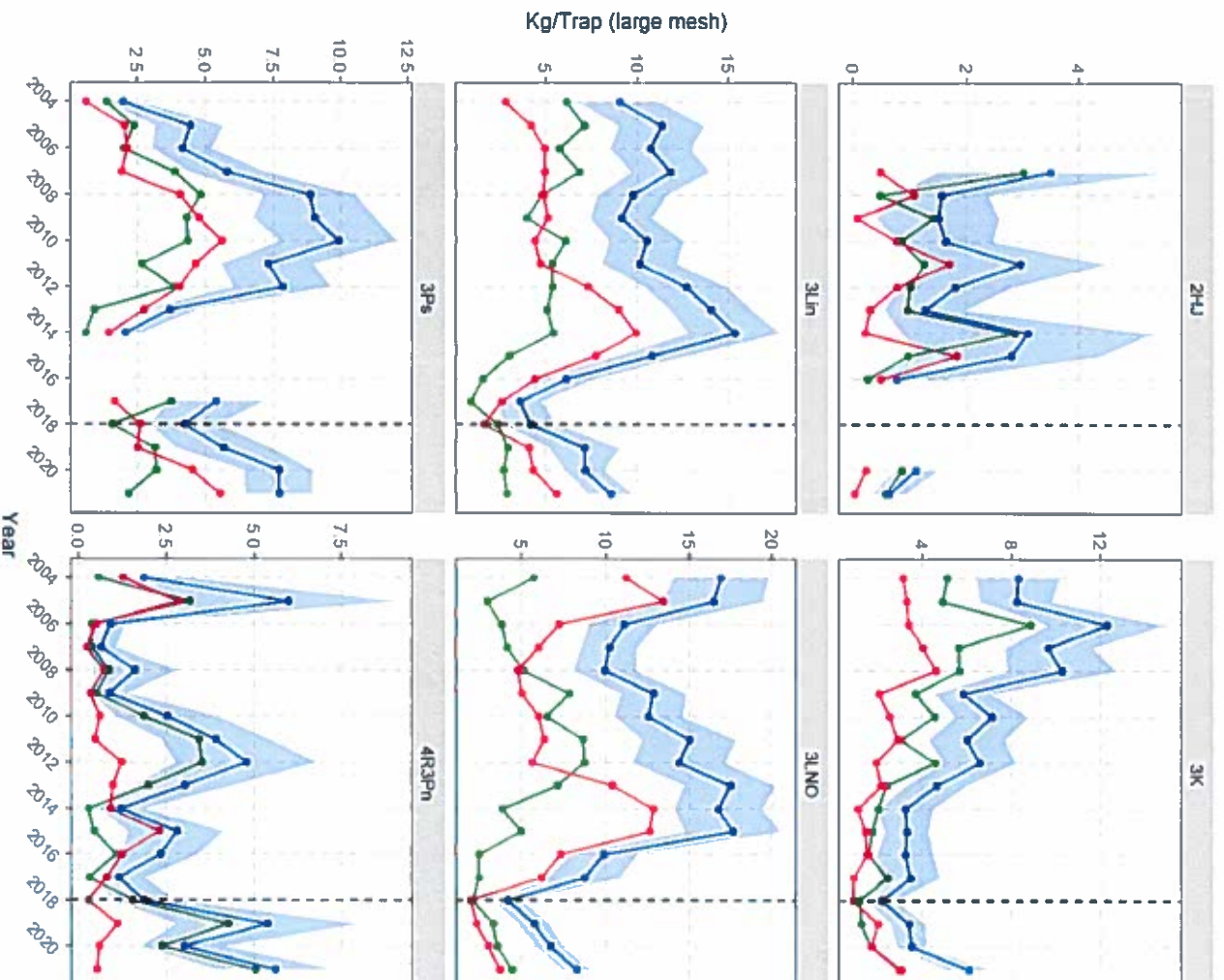


The overall trap survey **exploitable biomass** index increased to time-series highs in 2021.



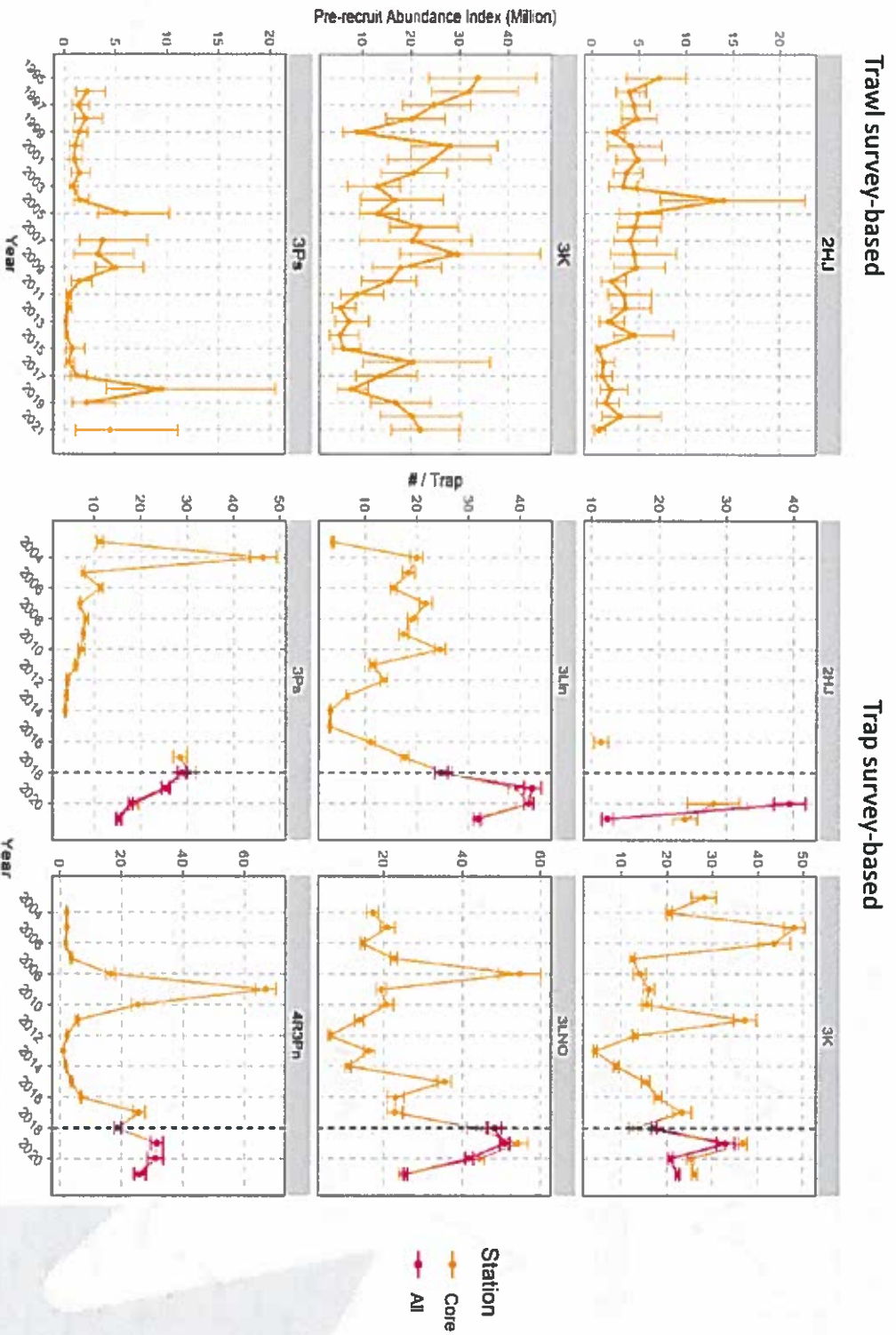
Biomass & Recruitment (Traps)

Overall catch rates maintained or improved in 2021, except 2HJ.



Total crab **Recruits** **Residuals**

Pre-recruits (available to fishery in 2-4 Years)

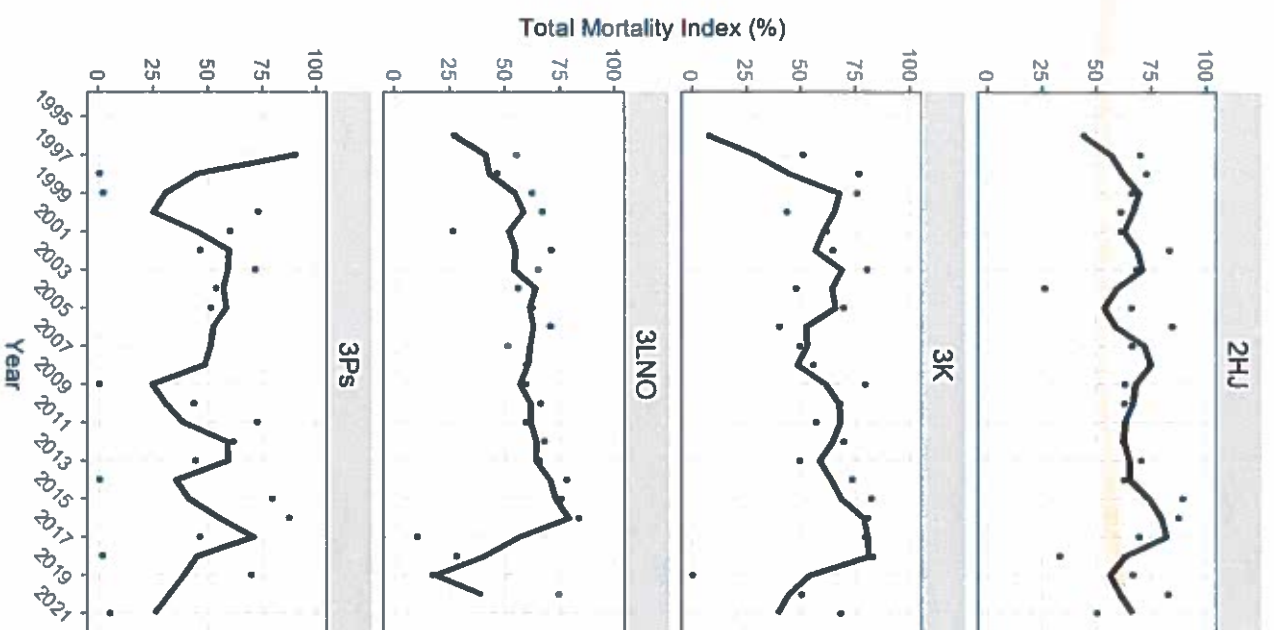


Pre-recruit Abundance Index may have peaked in recent years.

Total Mortality

Total mortality of exploitable crab has decreased in most Assessment Divisions in recent years.

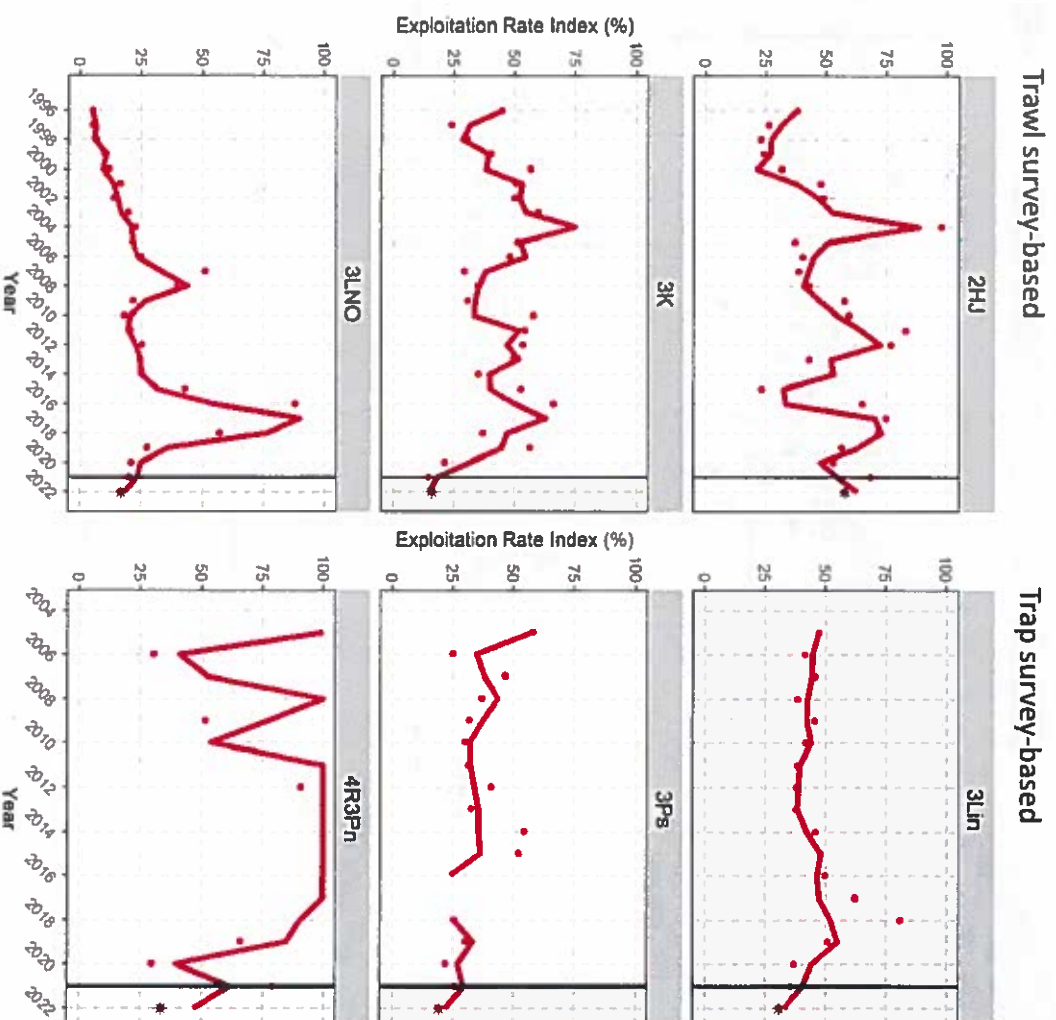
It remains highest in AD 2HJ.



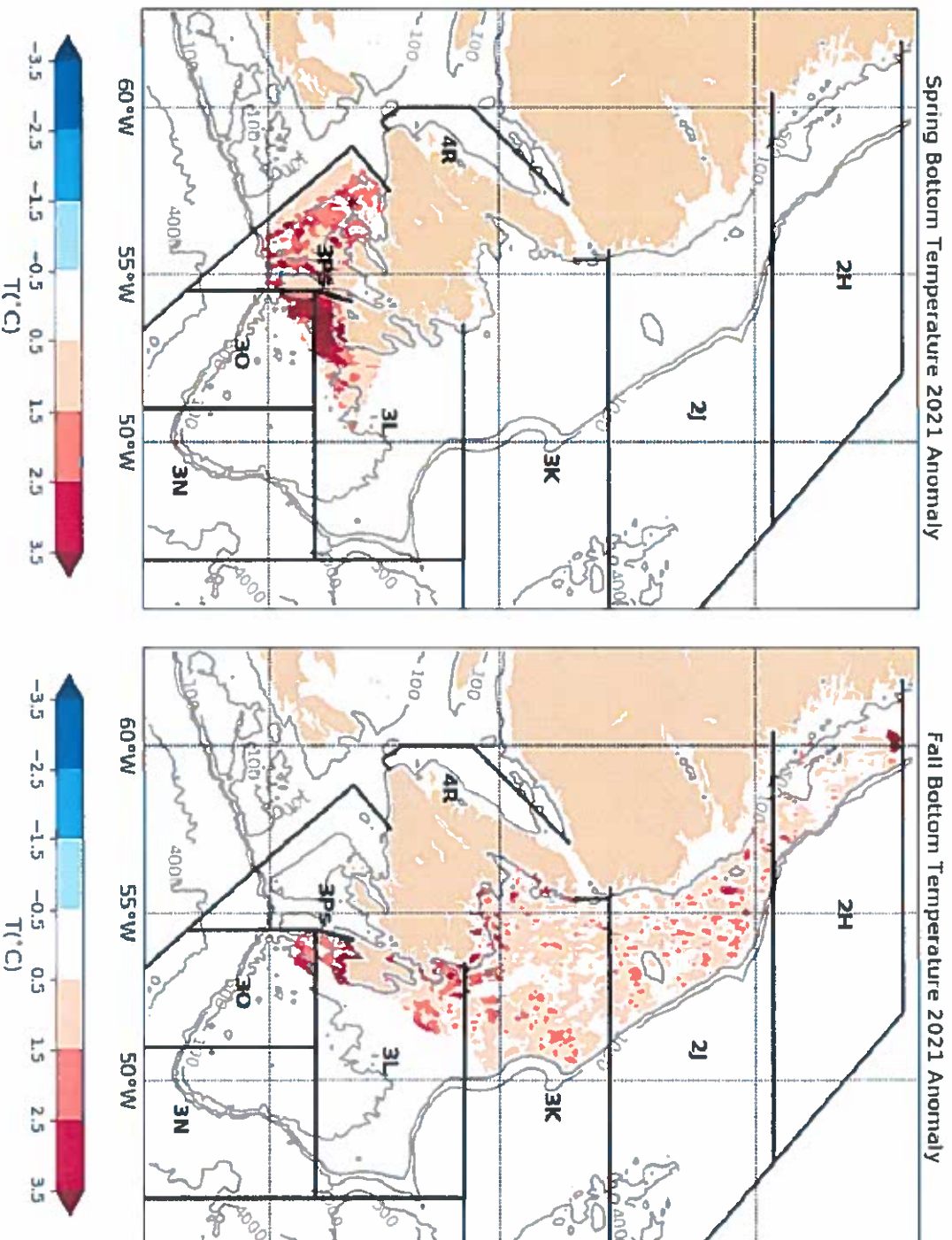
Fishing Mortality

The exploitation rate index was near time-series lows in all ADs in 2021, except 2HJ where exploitation remained high.

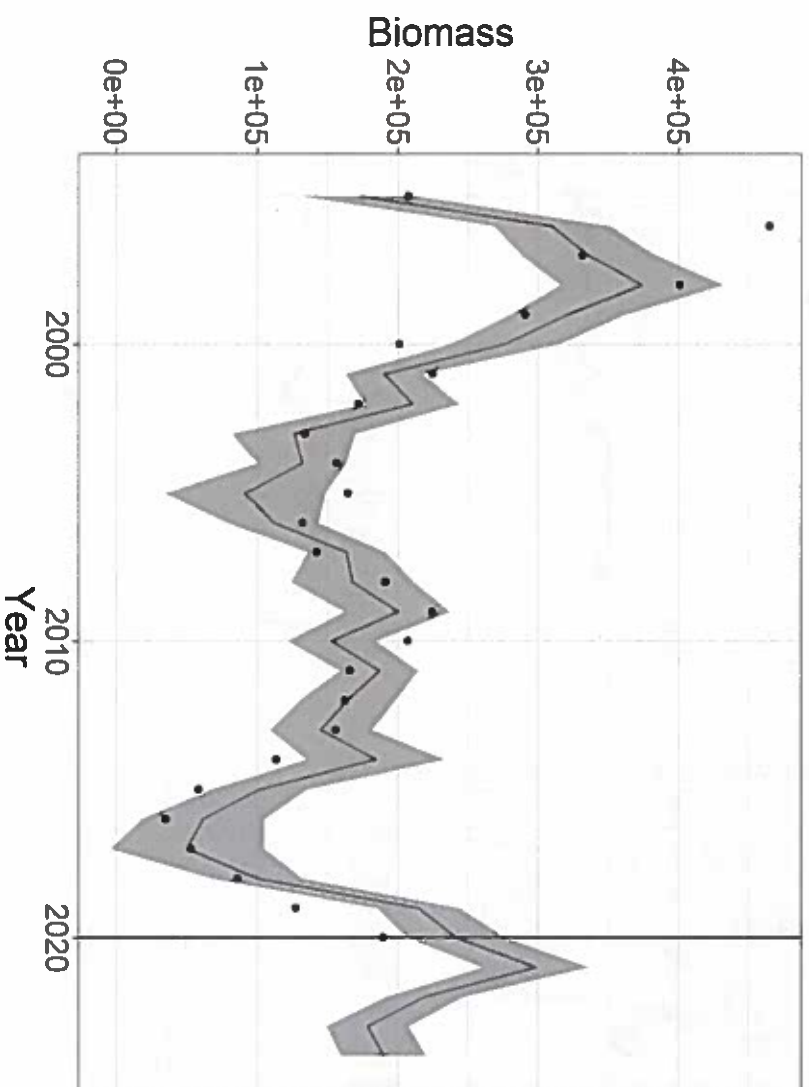
Status quo removals would further reduce the **exploitation rate index** in all ADs in 2022, except AD 2HJ.



Climate - Bottom Temperature



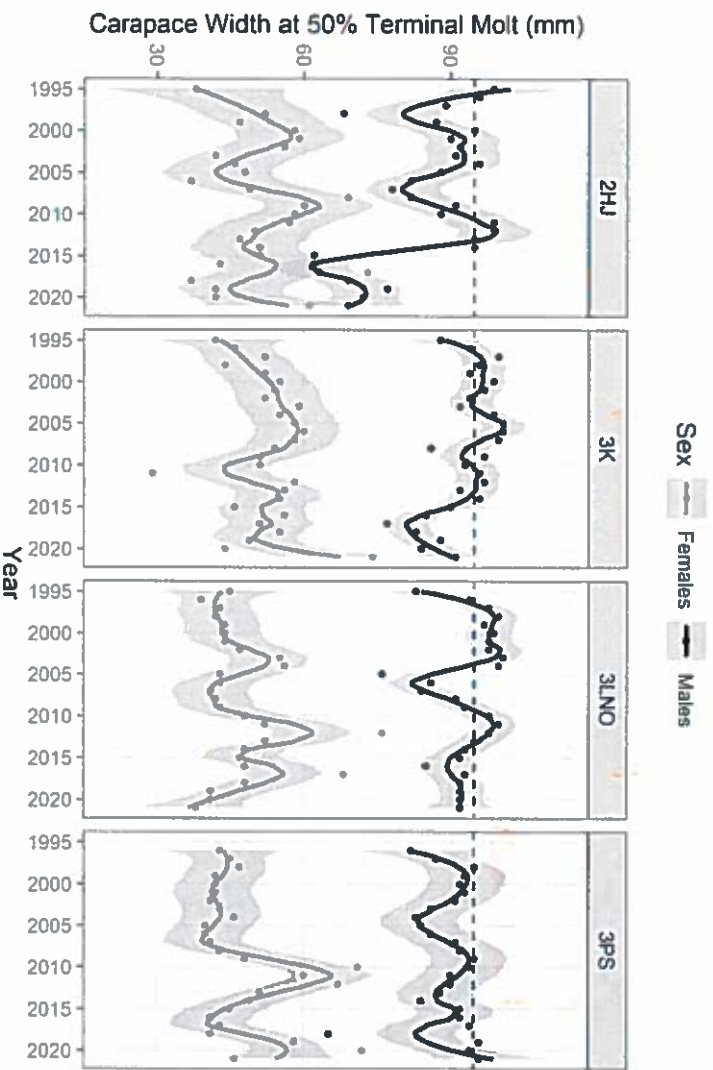
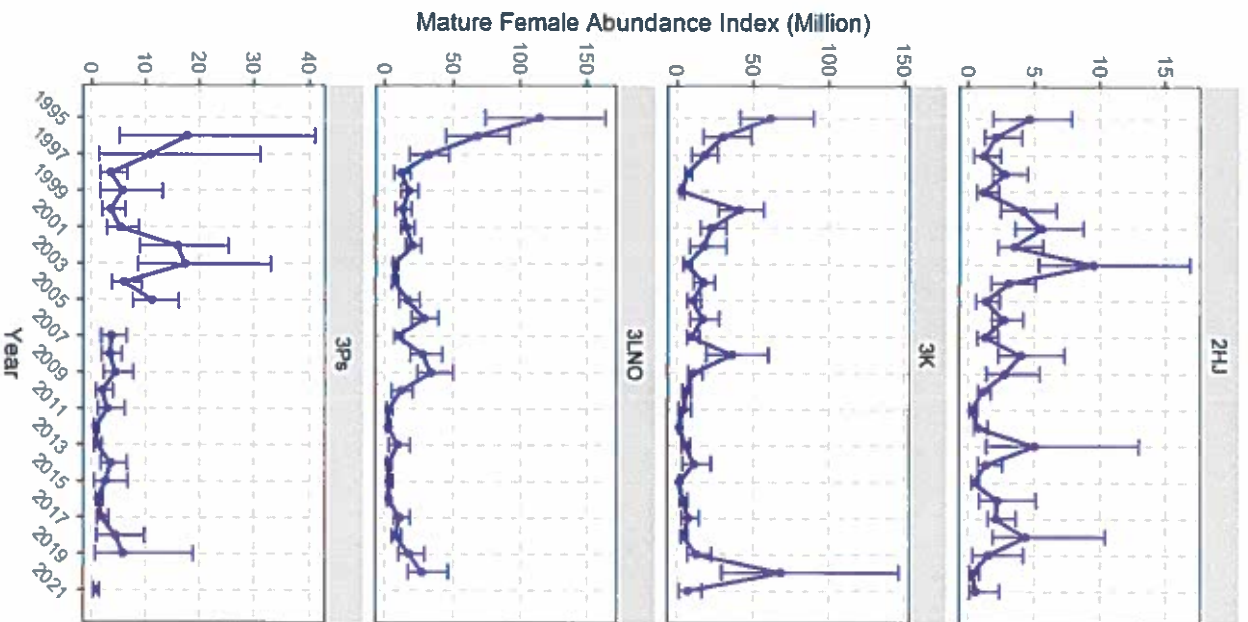
Future Outlook



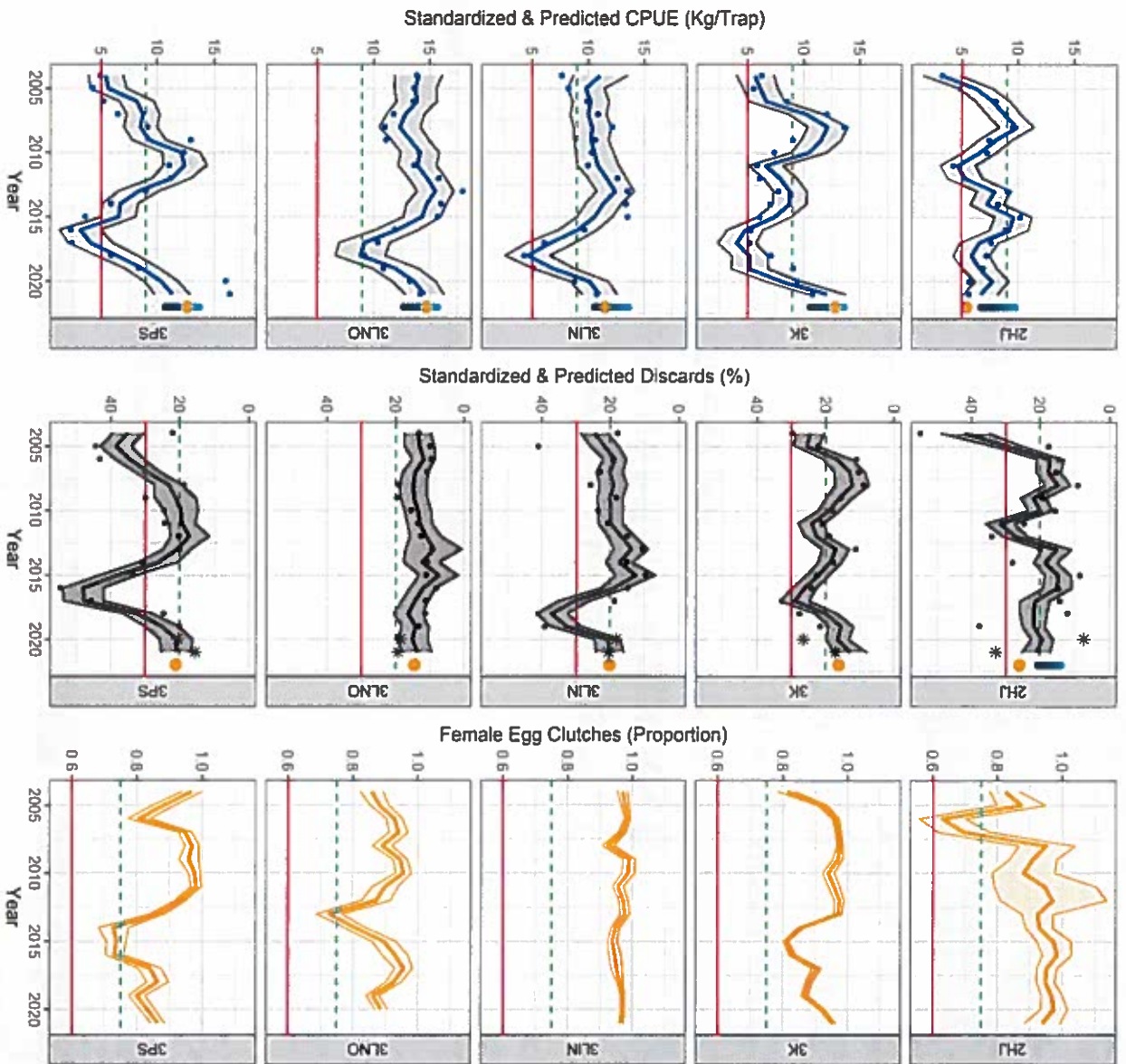
Recent trends between the exploitable biomass and lagged proxy climate indices indicate continued growth may be short-term.

Area of concern – 2HJ

High fishing pressure, low residual biomass, declines in male size-at-terminal molt and declines in mature female abundance are a concern in this area.



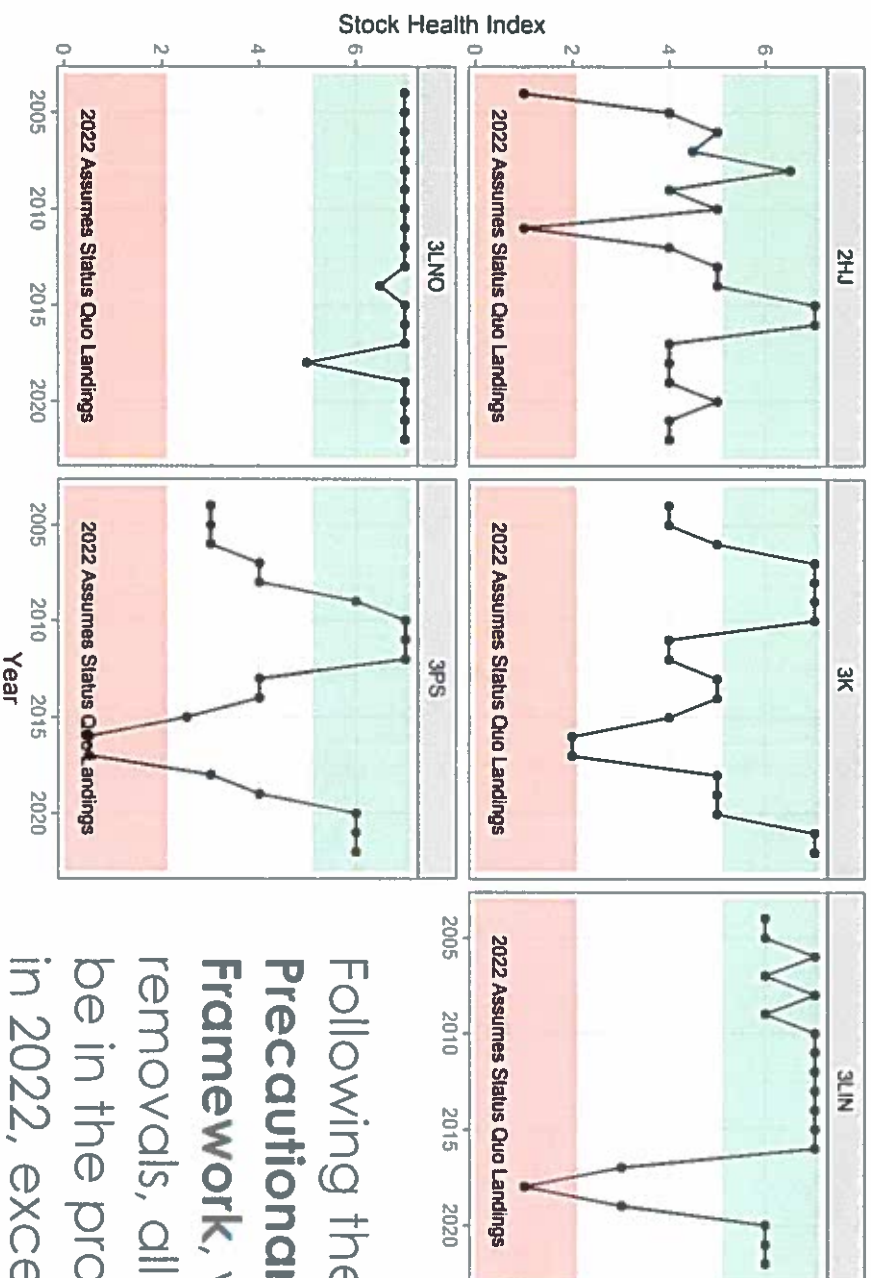
PA Framework - Stock Status Metrics



PA Framework – 2022 Projections

Zone	Egg Clutch	pDiscards	pcPUE
healthy	1	2	4
cautious	0.5	1	2
critical	0	0	0

Zone	Points
Healthy	5.5 to 7
Cautious	2.5 to 5
Critical	0 to 2



Following the provisional **Precautionary Approach Framework**, with status quo removals, all ADs are projected to be in the provisional healthy zone in 2022, except 2HJ, which is projected to be in the provisional cautious zone.

Key takeaways

- There have been improvements in most Snow crab assessment divisions in recent years, which are likely to continue in the short-term.
- The last four years have shown an overall trend towards warmer and potentially less favourable environmental conditions for future productivity and there are indications that abundance indices of pre-recruits (2-4 years until commercial size) may have peaked.
- However, there is continued concern about 2HJ (Labrador) where there is persistently high fishing pressure, low residual biomass, declines in male size-at-maturity, declines in mature female abundance and high total mortality.
- With status quo removals in 2022, all Snow crab Assessment Divisions are projected to be in the Healthy Zone of the provisional Precautionary Approach Framework, except for AD 2HJ (Labrador), which is projected to be in the Cautious Zone. Harvest Control Rules are still under development.

Questions?