#1

Fishery Performance (Annual monitoring) & Prototype Risk policy factor Report

Andrew Applegate

Council meeting

December 2025

New England
Fishery Management Council

Risk Policy Use and Development

- New Risk Policy became effective on January 1, 2025.
- Two phases (use and development) are happening concurrently.

USE – ALPHA Phase

- Risk Policy Concept as approved in Sept. 2024.
- Statement and Stability.
- 7 factors, and guidelines.
- Risk Policy matrix completed by PDTs.
- Qualitative application.

Development – BETA Phase

- Simulation testing.
- Weightings exercise.
- Incorporate input. Adjustments to factors and data.
- Connection to harvest control rules.
- Quantitative application for 2027.

Beta Phase: Risk Policy Development

- The Beta Phase responds to the Council's tasking to continue to refine elements of the concept while the Risk Policy is in use (Alpha Phase).

- Beta phase is expected to include updates to the Risk Policy factors and guidelines for scoring (e.g. questions, data), weighting of factors by the Council, outcomes from the simulation testing, and the linkage of the Risk Policy with updated groundfish ABC control rules. These changes are anticipated to occur no earlier than 2026.

Beta Phase - Development

- Risk Policy is being discussed in several venues, and feedback is coming from multiple sources. Fluid timing of projects and processes with forward progress (vs. contingencies). Overlap in personnel.

- Council, SSC, CESC, IRA ABC Control Rules Project Oversight Team, SSC-SSS, direct input.
  - Expected: Process mapping, aiming to be coordinated, new products?
  - BETA implementation connected to Groundfish Framework 68, then an off-ramp or a slow down.

- Staff, CESC Chair, RPWG Chair, to continue to explore opportunities for Steering Committee engagement in Risk Policy implementation.

New purposes of report

- Address new needs
  - Fishery performance
  - Data summaries for risk factor evaluation
- Standardization and efficiency
  - Less partner support
  - More efficient process
  - Follows our own schedule
  - Consistent format

Potential uses

- Intended use: Inform management of fishery trends and risks
- Intended recipients: PDTs with high-level abridged version for SSC and Council
  - Provide summary data for risk policy factor scoring
  - Provide summary data to complete risk policy matrices

New format

- Modified and efficient way to assemble relevant data about the fishery and stocks
- Revised to resemble a fishery performance report
- Annual monitoring component
- Added: Factors that could eventually be used for scoring in Phase II
- Adaptable to other fisheries, additional elements (process mapping)
  - DAS use for monkfish
  - Sector performance for large-mesh groundfish
  - Stock complex summaries for skates

Previous annual monitoring workflow

Provide timelines and deadlines for analyses and text

Badger PDT members and others to complete work

- Conduct PDT meeting

Assemble document by hand, Word or Power Point

Send draft document out for review

Incorporate edits and comments by hand

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Procedural workflow diagram

Run prepared code

- Update data using Roracle, create tables using Flextable and graphs using Ggplot
- Standard text in R document, prepared by staff and PDT

Render text, tables, and graphs in draft report

- Quarto (runs quickly in R)

PDT review and evaluation – modify text in R file

Re-render final report

- Adjust formatting

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Annual monitoring report Fishing year 2024

- Addresses conditions during 1st year of 2024-2026 specifications
- Presentation is the annual monitoring report in lieu of a formal written report
- Includes comments and recommendations by advisors

Annual monitoring report Fishing year 2024

- Four stocks targeted by 3-inch or larger mesh in exempted areas
  - Northern silver hake and southern whiting
  - Northern and southern red hake
- Survey biomass and recruitment trends
- Utilization compared to annual catch limit
  - Landings, hake discards, state water landings, recreational catch
- Fishery performance, economic and effort trends
- Finfish discards in the directed small-mesh multispecies fishery

1.1 PDT Comments and Recommendations

Comments:

1. The misassignment of whiting trips to fishery group in CAMS for ‘state’, ‘uncategorized’ and ‘whiting’ categories should be investigated and potentially revised.
2. The social sciences branch should investigate the causes for the rapid decline in whiting prices since 2022. These declines may be related to seasonal factors or imports or consumer preference.
3. More granular analysis of individual exemption area fishery characteristics would be useful for evaluating fishery trends and their implications for management.
4. Risk policy factor summaries within this report will be useful to consider risk and advise the Council and SSC about small-mesh multispecies ACL specifications in 2026.

- Management Recommendations:
  1. **The southern red hake post-season accountability measure should not be adjusted for an 18% FY 2024 overage**.
     - The FY 2024 catch exceeded the official ACL approved by NOAA Fisheries that applied a 25% reduction for rebuilding, but did not exceed the ACL that had been recommended by the SSC and approved by the Council for the 2023-2025 specifications.
     - In 2023 following an assessment update, the SSC said that fishing was an unlikely cause in reductions in biomass
     - Uncertainty in the index-based assessment
     - Existing proxy reference points that define overfishing are inconsistent with more recent assessment information.

1.2 AP Comments and Recommendations

- Comments:
  - Changes in fish condition may depend on a variety of factors
  - Discards have been increasing because the industry is seeing an increase of red hake biomass

- Recommendations:
- THE PDT and SSC should evaluate management alternatives to reduce discards of red hake by increasing red hake possession limit.
  - To include and analyze red hake possession limit/TAL trigger alternative for consideration in the 2026 specifications document. The 40% TAL trigger should be re-examined and potentially revised
  - To reexamine and potentially modify the exemption area boundaries and seasons, potentially including a southward extension of SMA2 into the Wilkinson Basin and to the west of the CSA., as well as duration of the existing areas.

2.2 Northern red hake catch summary for FY 2024

- Catch was 15 percent of the ACL, so overfishing is not occurring and accountability measure changes are unnecessary. Utilization declined from 23% of the ACL in 2023.
- Discards were 89 percent of total catch, about the same as 2023

Disposition	Jurisdiction	Catch (lbs)	Catch (mt) 2,973 mt ACL	Percent of ACL	Percent of catch	Trips	Permits	Catch per trip (lbs)
Landed	Federal	107,122.0	48.6	1.6%	10.7%	602	38	177.9
Landed	Research			0.0%	0.0%	6	<3	
Landed	State			0.0%	0.1%	27	<3	
Discarded	Federal	893,975.0	405.5	13.6%	89.2%	245,560	2453	3.6
Total	**All**	**1,001,097.0**	**454.1**	**15.0%**	**100.0%**	**246,162**	**2491**	**4.1**

2.4 Southern red hake catch summary for FY 2024

- Catch was 118 percent of the ACL (including a 25% rebuilding adjustment), so overfishing occurred in 2024 (but catch was 99% of an unadjusted ACL approved and submitted by the Council) and accountability measure changes are unnecessary. Utilization increased from 85% of the ACL in 2023.
- Discards were 89 percent of total catch, up slightly from 87% in 2023
- ABC = 1,370 mt

Disposition	Jurisdiction	Catch (lbs)	Catch (mt) 1,370 mt ACL	Percent of ACL	Percent of catch	Trips	Permits	Catch per trip (lbs)
Landed	Federal	370,952.0	168.3	12.3%	10.4%	3,113	361	119.2
Landed	Research			0.0%	0.0%	2	<3	
Landed	State	28,122.0	12.8	0.9%	0.8%	668	7	42.1
Discarded	Federal	3,160,885.0	1,433.8	104.7%	88.8%	42,322	1418	74.7
Total	**All**	**3,559,959.0**	**1,614.9**	**118.0%**	**100.0%**	**46,103**	**1786**	**77.2**

Current Red Hake Specifications (May 1, 2024 to April 30, 2026)

Stock	Northern Red	Southern Red
Overfishing Limit (OFL)	Unknown	Unknown
Acceptable Biological Catch (ABC)	3,129 mt	1,370 mt
Annual Catch Limit (ACL)	2,973 mt	1,301 mt
Total Allowable Landings (TAL)	1,274 mt	234 mt

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Acceptable Biological Catch (ABC)	3,129 mt	1,370 mt
Annual Catch Limit (ACL)	2,973 mt	1,301 mt
Total Allowable Landings (TAL)	1,274 mt	234 mt

2.6 Northern silver hake catch summary for FY 2024

- Catch was 5 percent of the ACL, so overfishing is not occurring and accountability measure changes are unnecessary. Utilization decreased from 14% of the ACL in 2023.
- Discards were 22 percent of total catch, an increase from 19 % in 2023

Disposition	Jurisdiction	Catch (lbs)	Catch (mt) 38,825 mt ACL	Percent of ACL	Percent of catch	Trips	Permits	Catch per trip (lbs)
Landed	Federal	3,548,778.0	1,609.7	4.1%	76.3%	2,097	118	1,692.3
Landed	Research			0.0%	0.0%	3	<3	
Landed	State	54,443.0	24.7	0.1%	1.2%	129	4	422.0
Discarded	Federal	1,044,915.0	474.0	1.2%	22.5%	13,602	666	76.8
Total	**All**	**4,648,136.0**	**2,108.4**	**5.0%**	**100.0%**	**15,828**	**788**	**293.7**

2.8 Southern whiting catch summary for FY 2024

- Catch was 16 percent of the ACL, so overfishing is not occurring and accountability measure changes are unnecessary. Utilization increased from 8% of the ACL in 2023.
- Discards were 19 percent of total catch, the same percent as they were in 2023

Disposition	Jurisdiction	Catch (lbs)	Catch (mt) 19,142 mt ACL	Percent of ACL	Percent of catch	Trips	Permits	Catch per trip (lbs)
Landed	Federal	5,374,682.0	2,437.9	12.7%	80.0%	4,274	482	1,257.5
Landed	Research			0.1%	0.5%	6	<3	
Landed	State	68,998.0	31.3	0.2%	1.0%	578	8	119.4
Discarded	Federal	1,241,005.0	562.9	2.9%	18.5%	43,810	2290	28.3
Total	**All**	**6,684,685.0**	**3,032.1**	**16.0%**	**100.0%**	**48,662**	**2780**	**137.4**

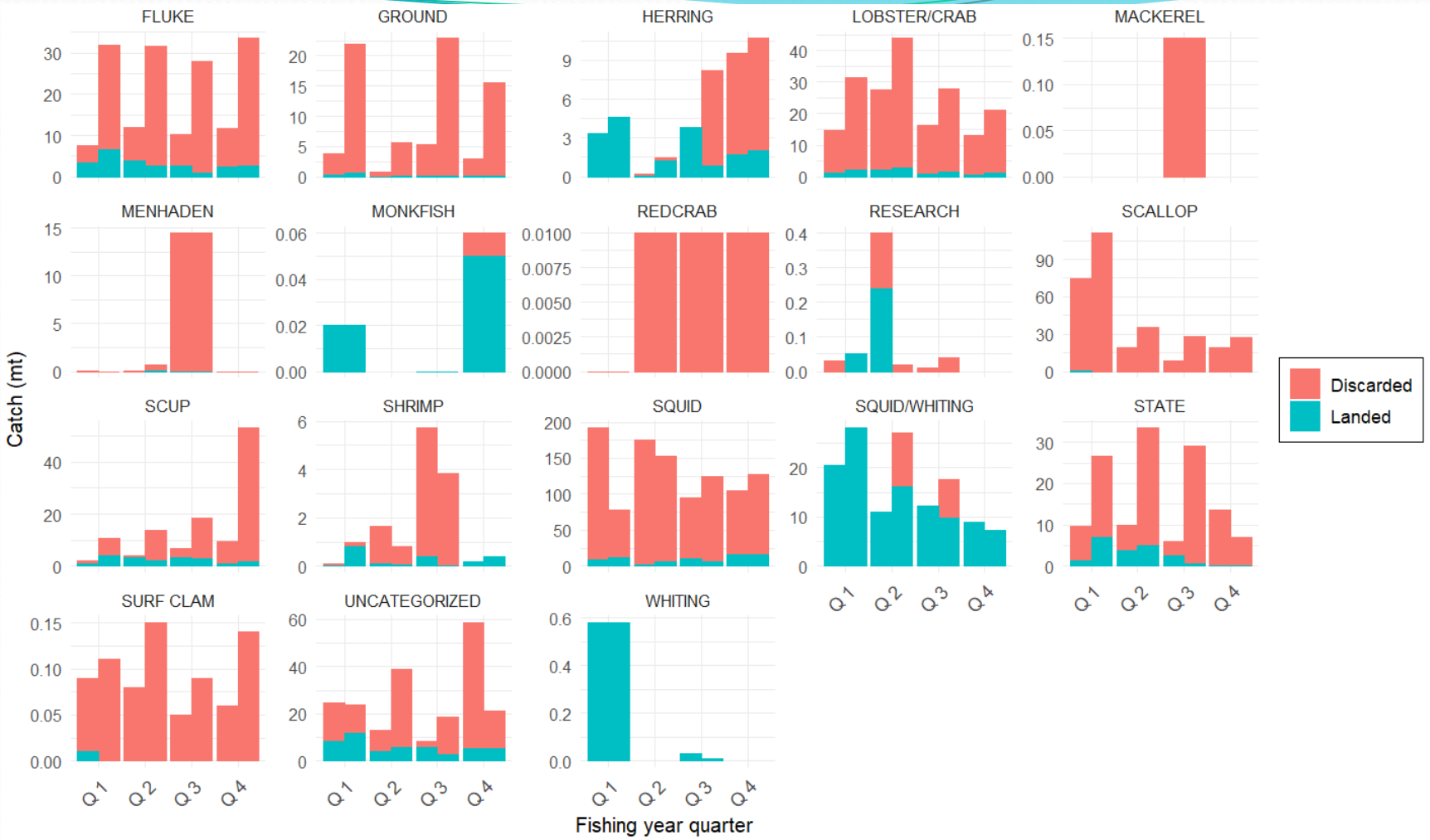
2.5 Southern red hake catches

- Most catch is discarded, except in the whiting and squid/whiting fishery groups
- Significant increases in total discards in the fluke, groundfish, lobster/crab, and scallop fisheries. State catch more than doubled.

Change in southern red hake catch by fishery group

2.5 Southern red hake catches

- Catch per quarter may show useful seasonal trends, comparing FHY 2023 and 2024
- Discards in the squid fishery group dropped in May to July, but increased in November to April.

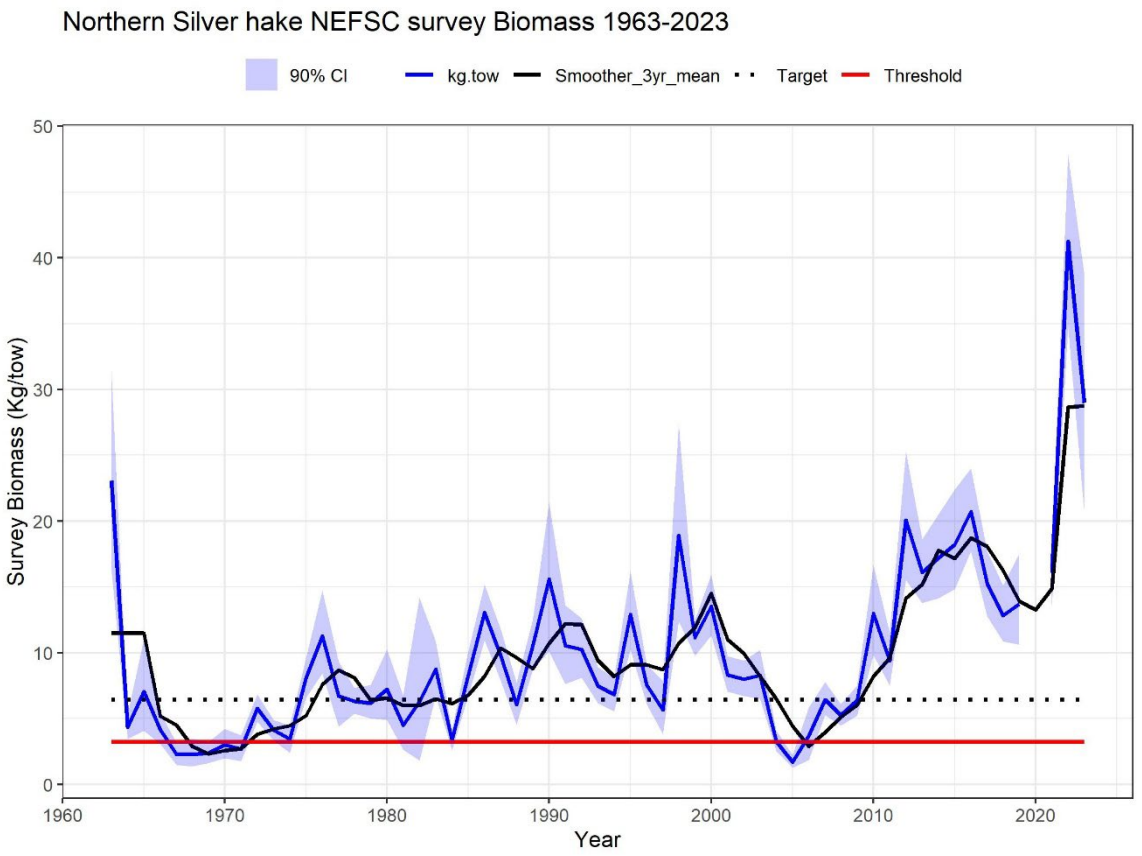


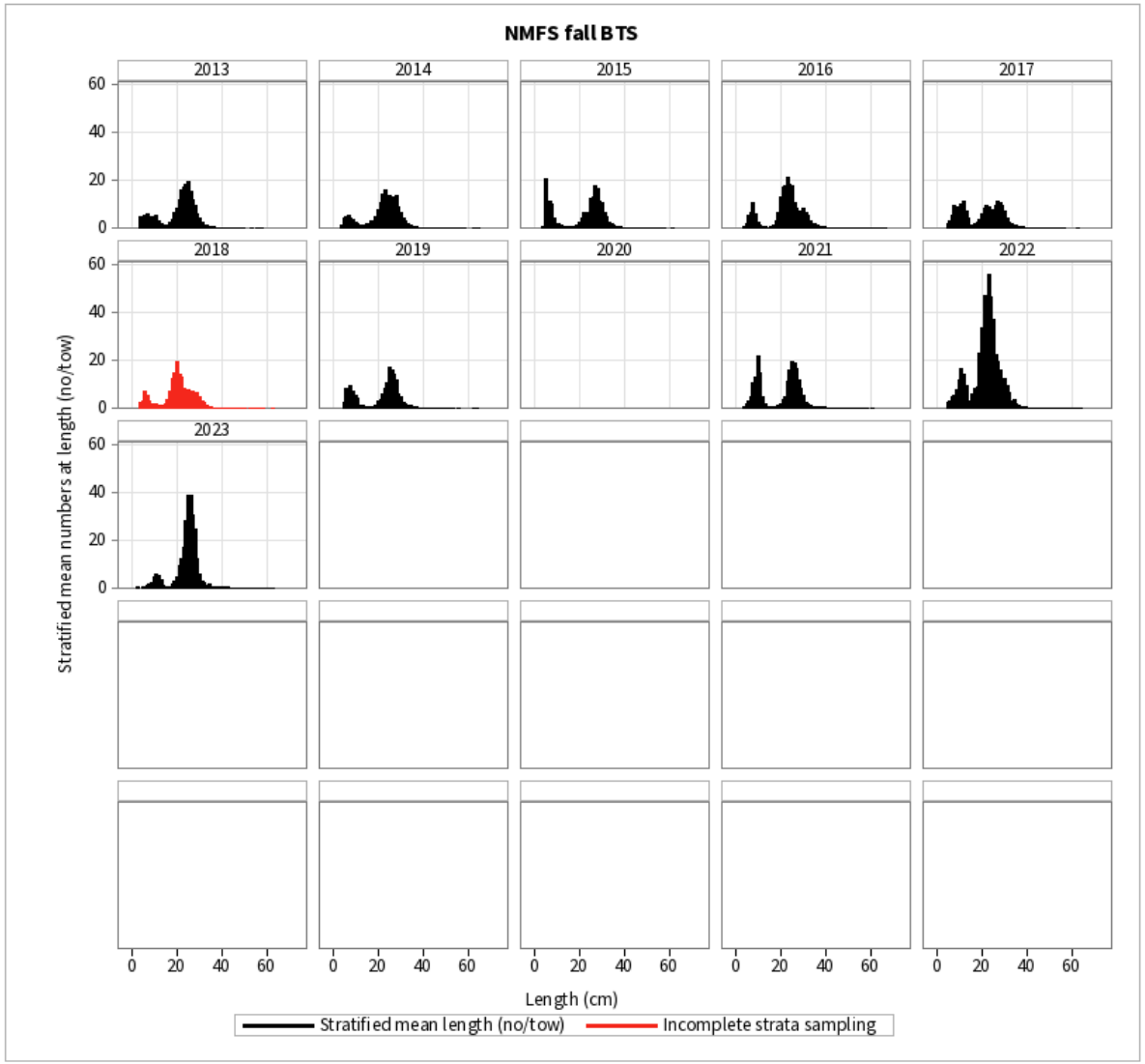
Change in southern red hake catch by fishery group

Northern silver hake

Not overfished, overfishing not occurring

Fall (2023)

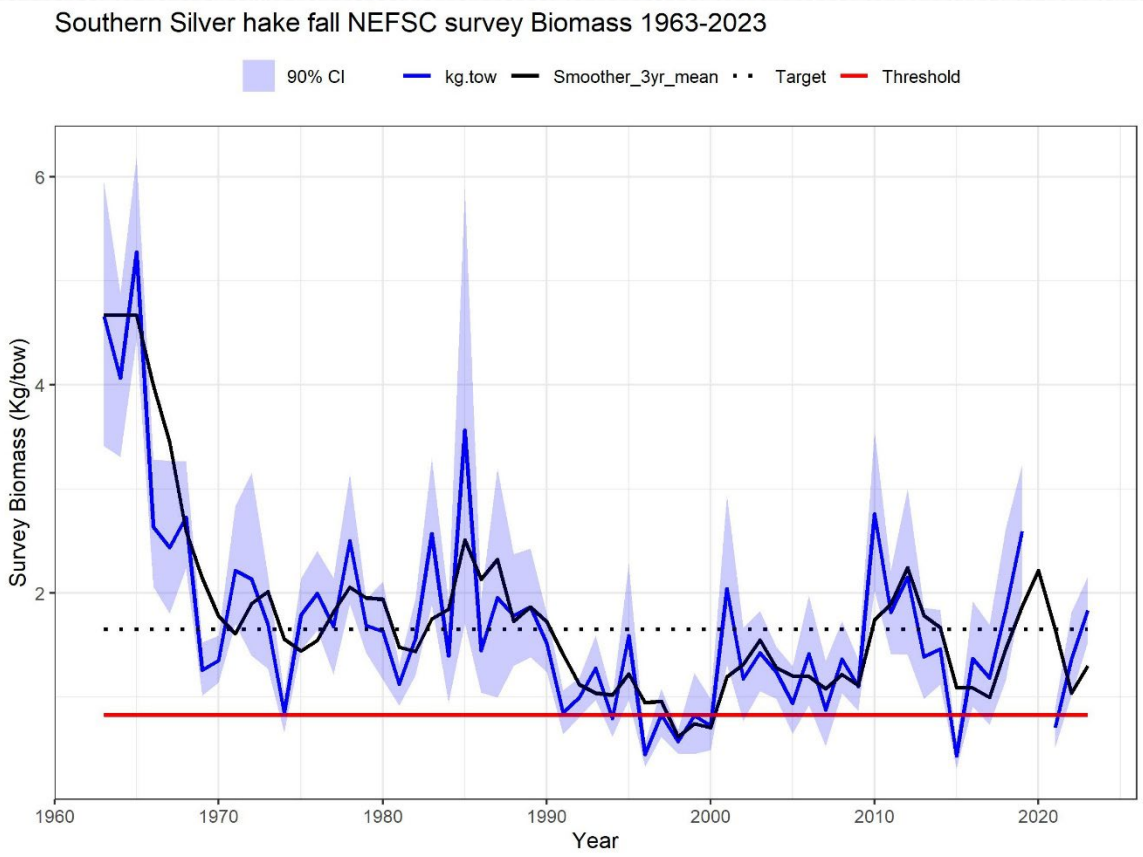


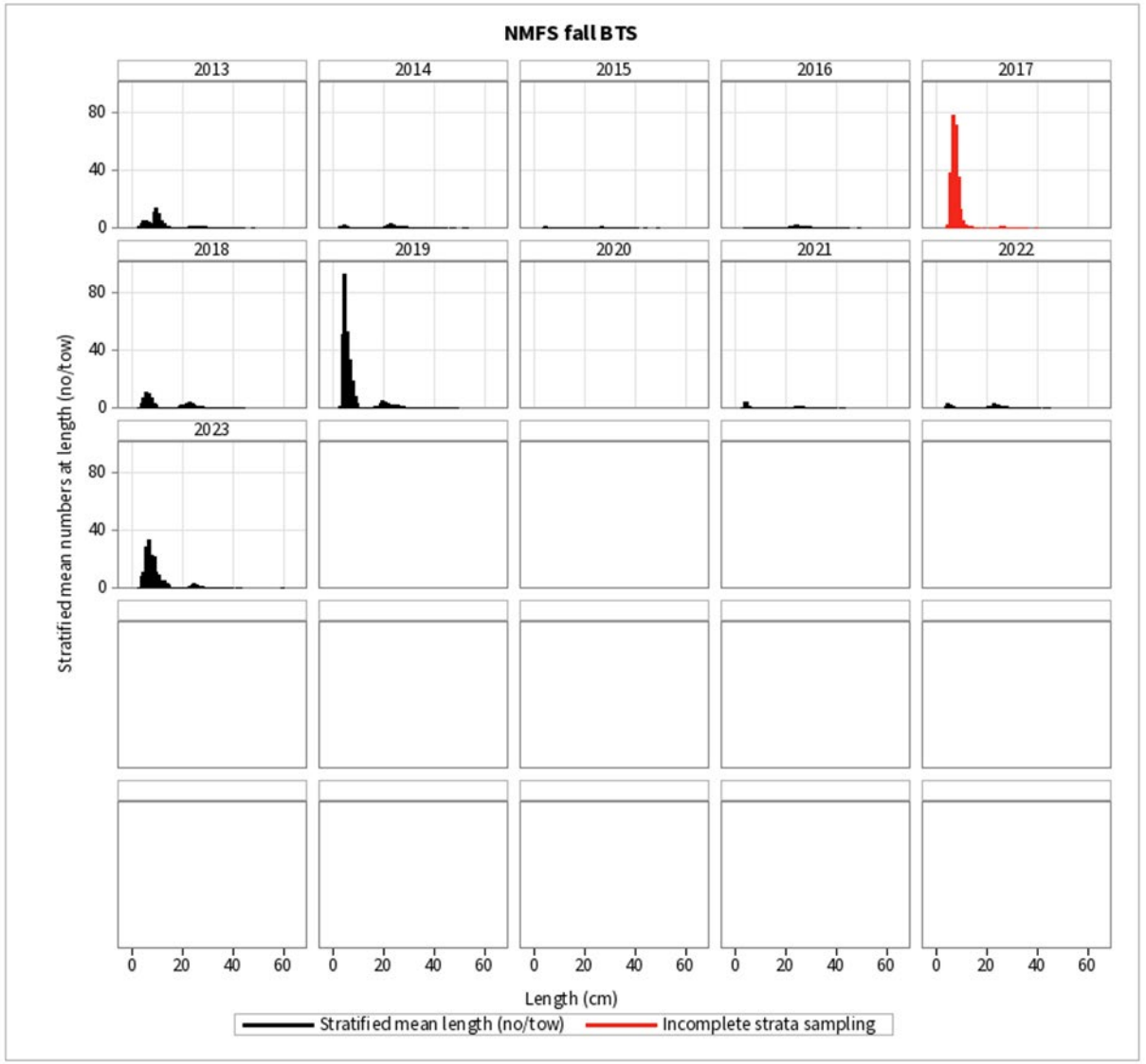


Southern Silver Hake

Not overfished, overfishing not occurring

Fall (2023)



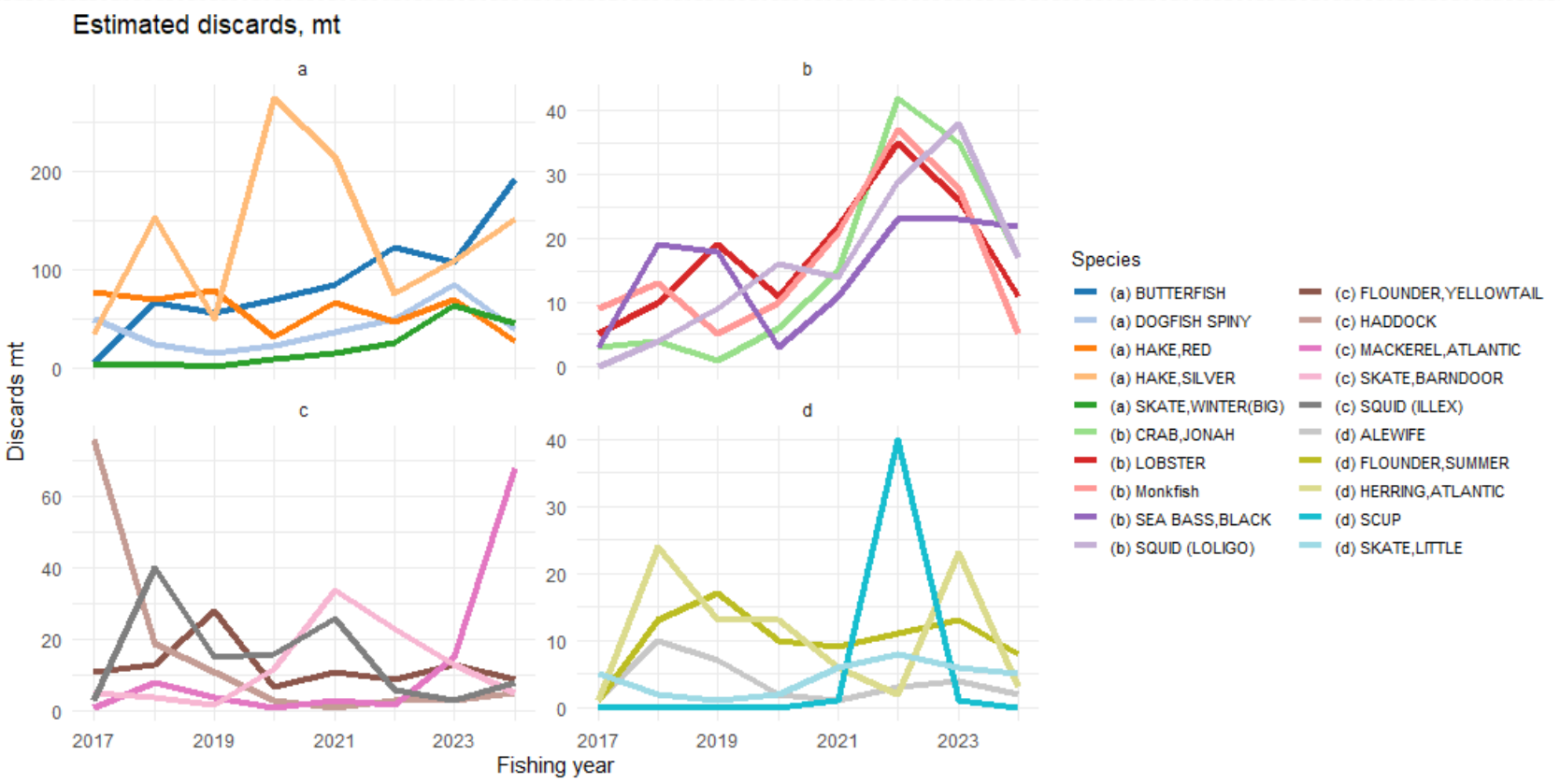


2.12 Finfish bycatch in the fishery

- Trends in most common finfish bycatch
- Trips landing > 2000 lb whiting OR 400 lb red hake

2.12.1 Northern management area bycatch

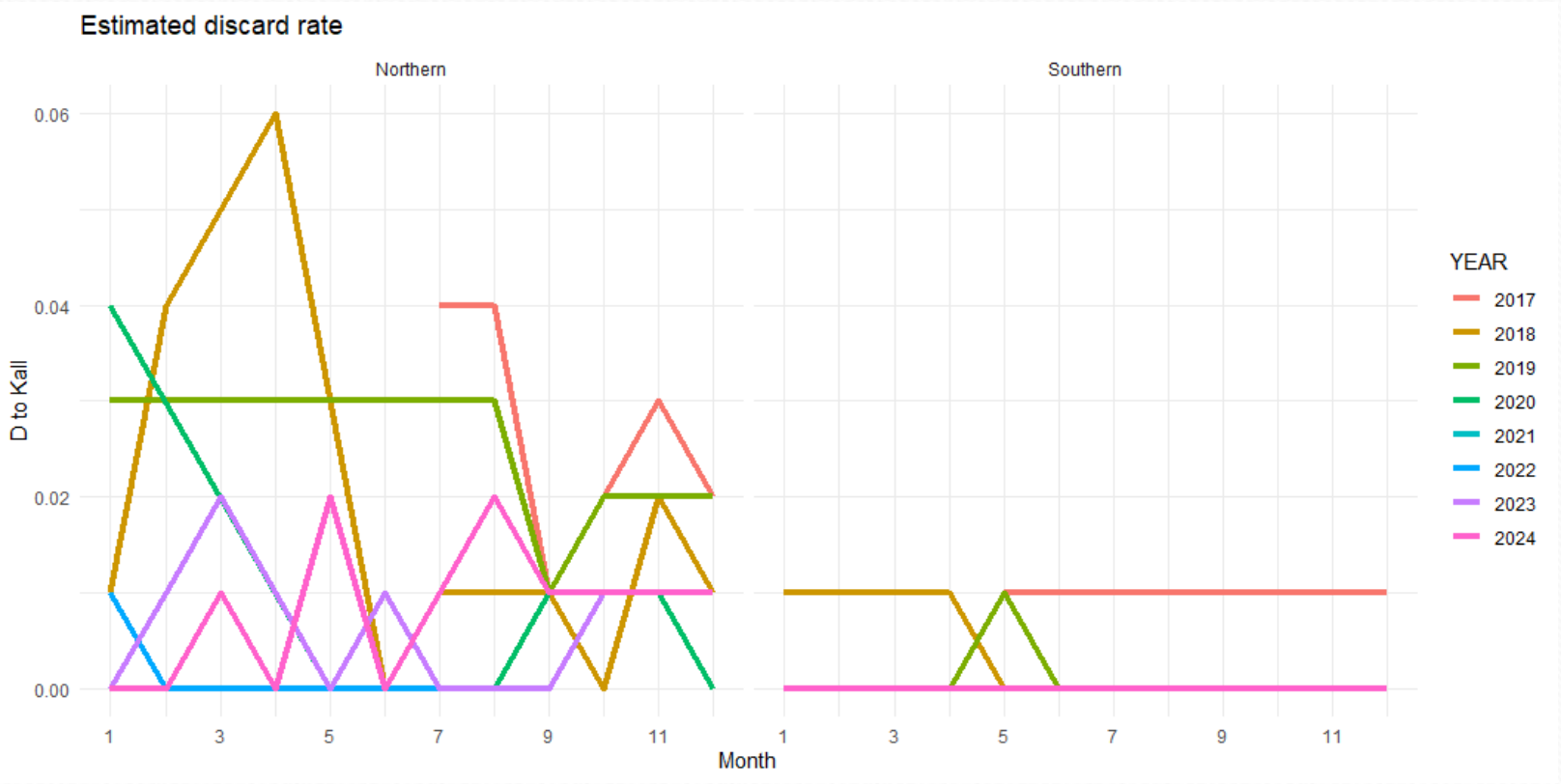
- Top species by weight in FY 2024: Haddock, silver hake, winter skate, spiny dogfish, red hake
- ‘Angler’ = ‘Monkfish’



Top 20 finfish estimated discards by fishing year, northern management area, grouped by total weight

2.12.3 Large-mesh multispecies bycatch

- Except for March 2018 in the northern area, multispecies bycatch has been consistently below 5% of landings on small-mesh trips.



Groundfish discard rate by area

3. Risk Policy Factors

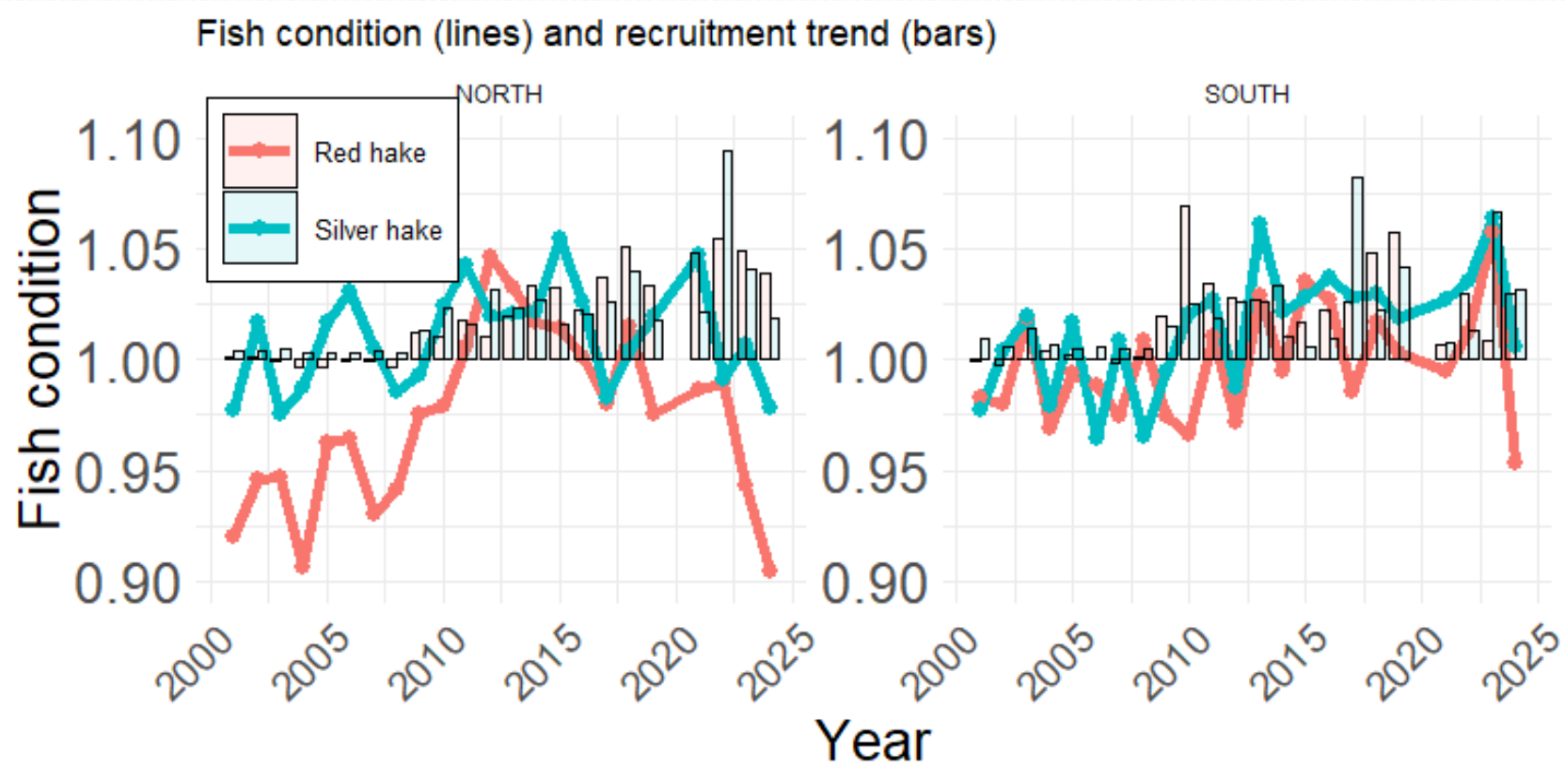
- Matrix
- Stock status and uncertainty
  - Status determination and rebuilding progress (if applicable)
  - SSB estimate compared to estimated referenced point
  - Trends in survey biomass (mean stratified weight per tow)
- Assessment description, uncertainty and retrospective pattern
- Climate and Ecosystem Considerations
- Economic and Community Importance
  - Commercial fishery characteristics
  - Recreational fishery characteristics

3.1 Climate and Ecosystem Considerations

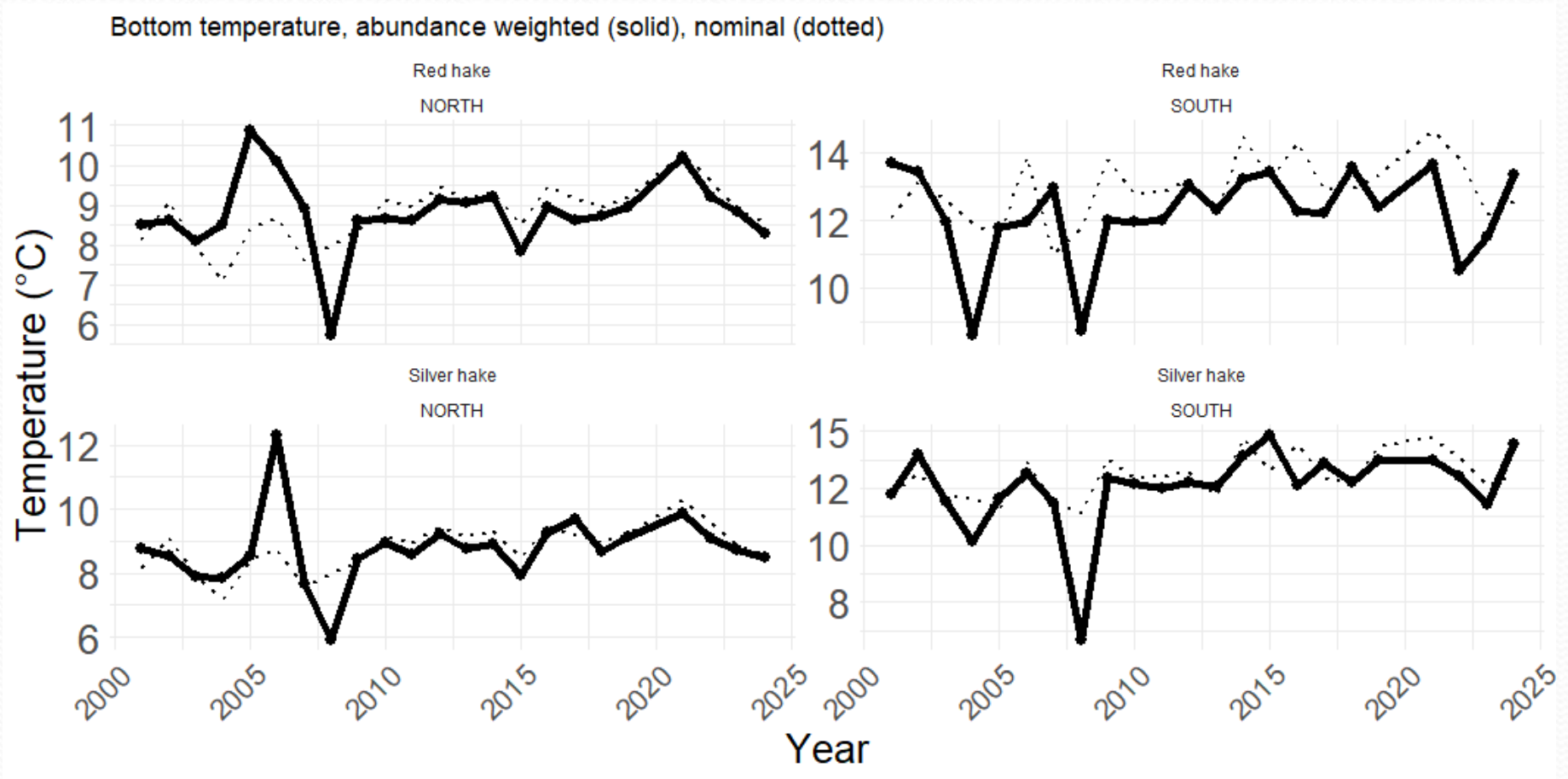
- Climate vulnerability of managed stocks
- Important trophic interactions
- Productivity: fish condition and recruitment trends
  - Managed stocks
  - Ecosystem

3.2 Fish Condition

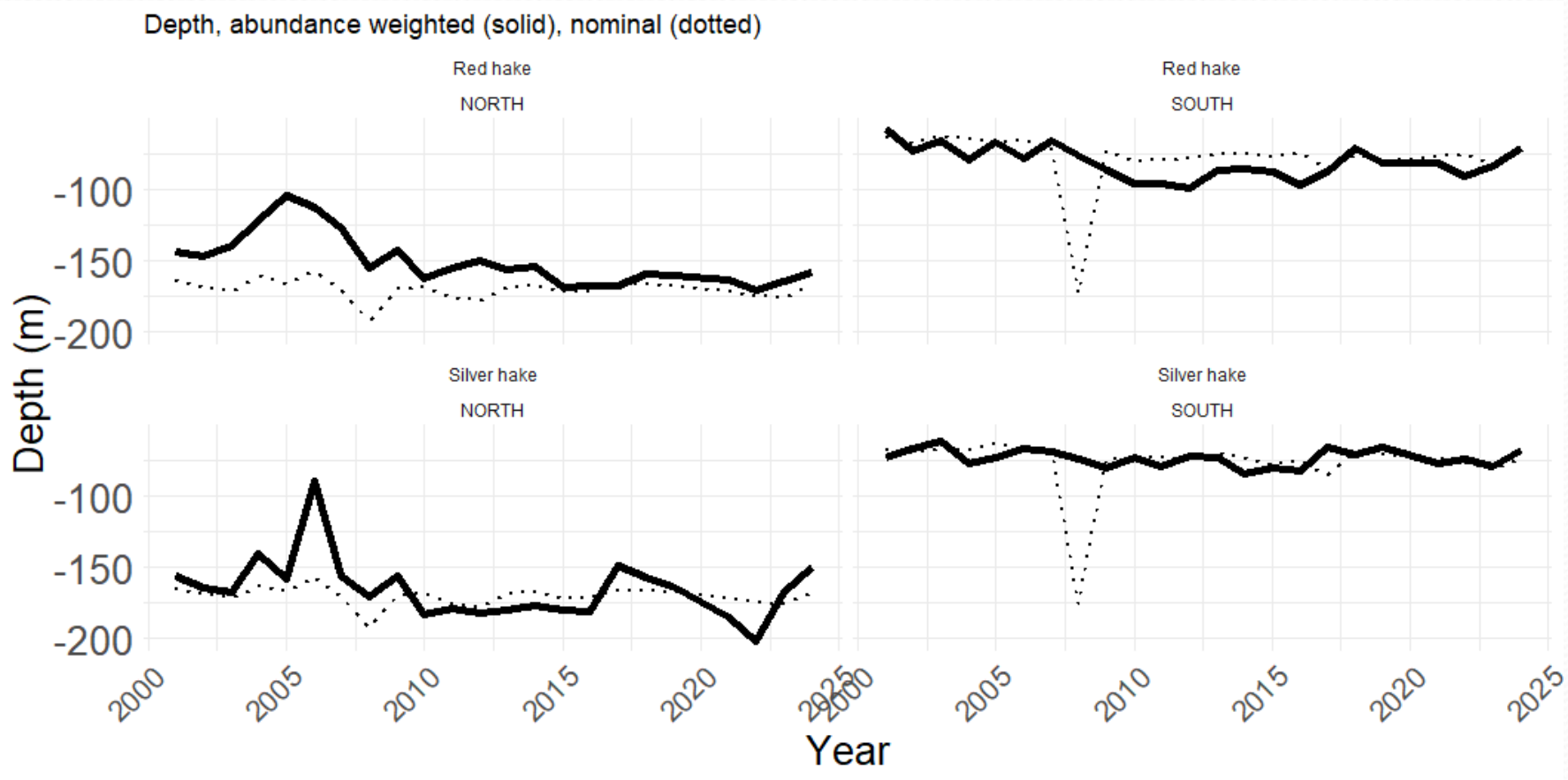
- Fish condition varies, sometimes related to prey abundance but also may vary due to predator abundance
- Fish condition may also vary due to changes in distribution and the effects of temperature on digestion



Fish condition by stock



Temperature weighted by abundance by stock



Depth weighted by abundance by stock

3.3 Economic and Community Importance

3.3.1 Commercial fishery characteristics

- Economic and effort trends - Small-mesh multispecies
  - Landings and revenue by species
  - Trips and active vessels
  - Prices by species
  - Trips and vessels by pounds landed group
  - Landings and price by pounds landed group
  - Finfish price trends
  - Fishery reliance
    - Percent of annual revenue derived by vessels from the fishery, grouped by ???
  - Catch per effective area swept

- Landings for all stocks have declined. More stable in recent years, but were lowest in FY2024.
- Most silver hake landings were caught in the southern area, the proportion shifts to the north in recent years.
- Red hake landings come primarily from the southern area.

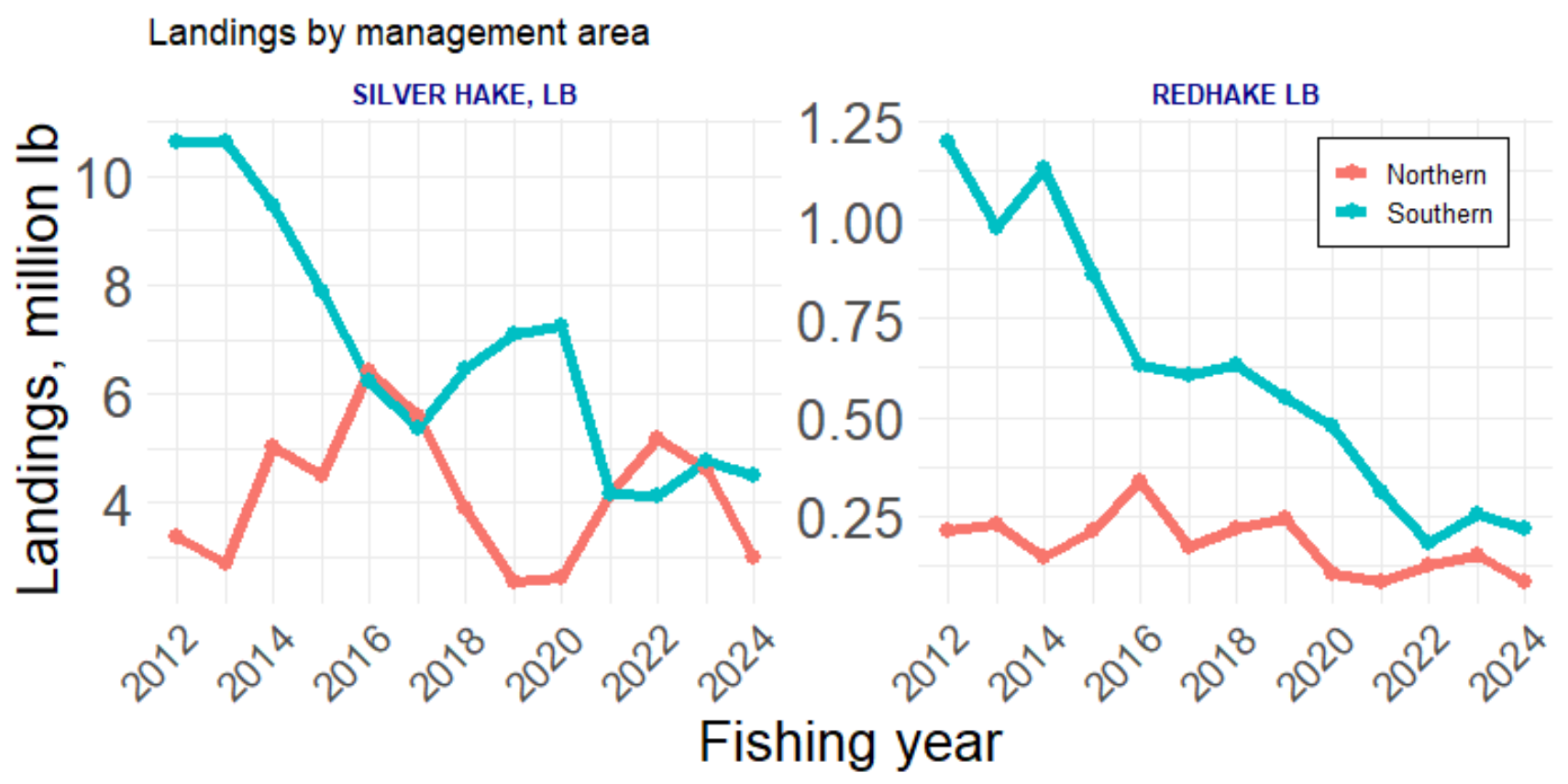


Figure 1: Landings by management area (Silver hake LEFT, Red hake RIGHT)

- Continuous declines in silver and red hake revenues
- Compared to 2012-2015, a greater proportion of silver hake revenue comes from northern area landings.
- 80% or more of red hake revenue comes from southern area landings

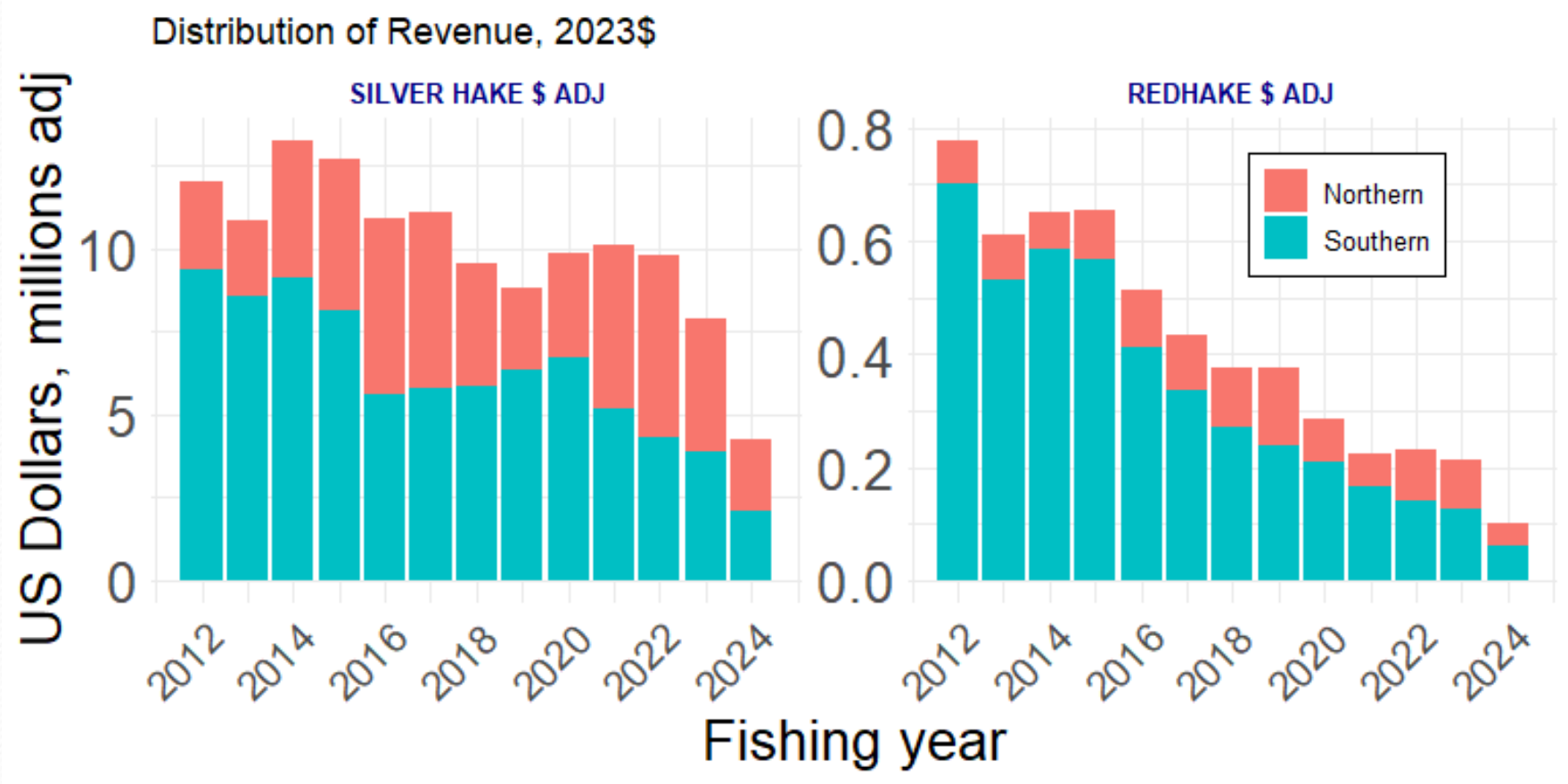


Figure 2: Revenue trends by species (Silver hake LEFT, Red hake RIGHT)

- Considerable decline in southern area trips and vessels targeting whiting since 2020, possibly related to relative squid abundance and price for vessels that are in both fisheries.
- Higher targeted fishing effort in the northern area since 2020, possibly vessels that targeted whiting in the southern area now fishing more often on Cultivator Shoals.

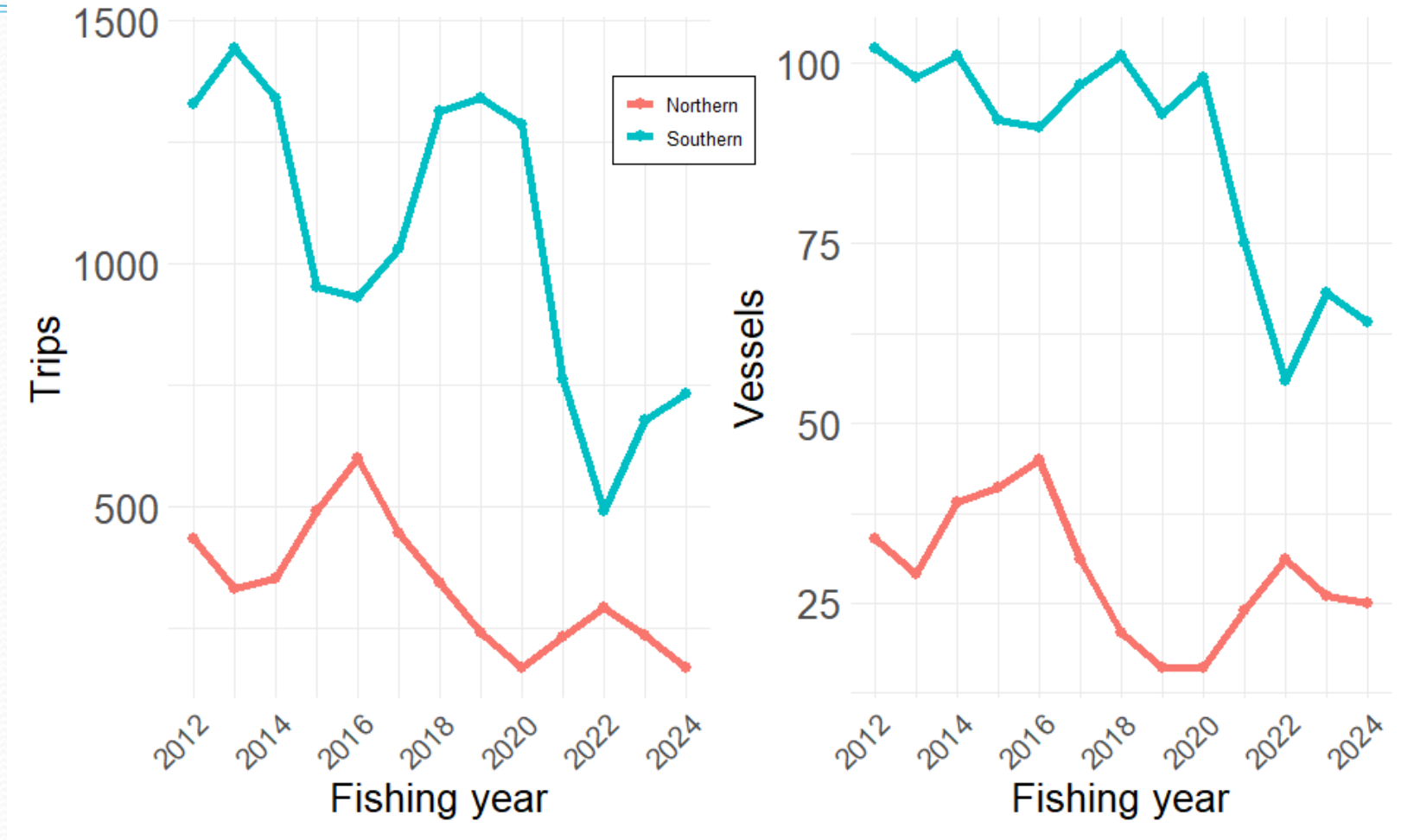


Figure 3: Trends in small-mesh multispecies trips > 2000 lb silver hake or > 400 lb red hake

- Considerable decline in whiting and red hake price since 2021.

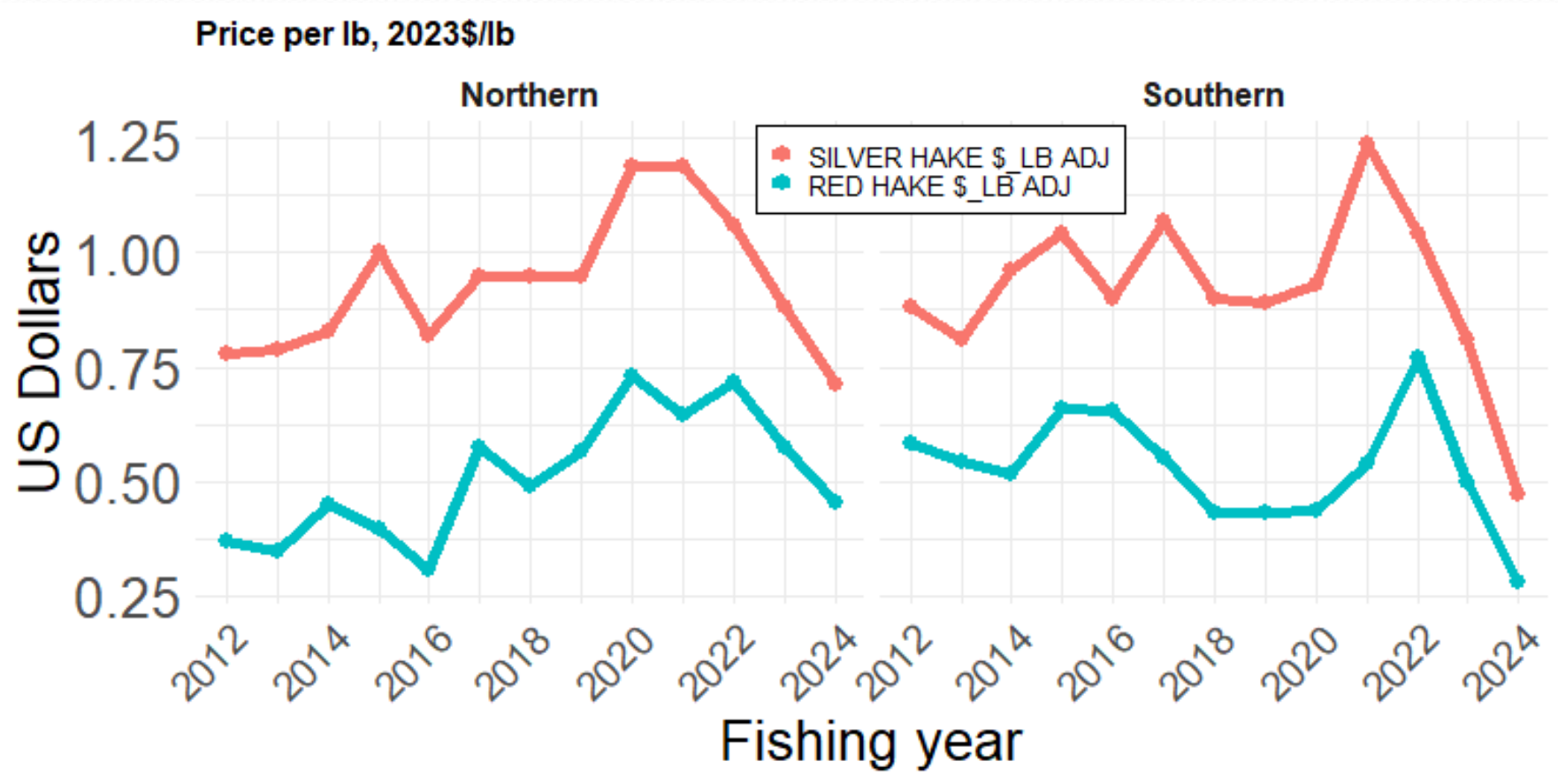
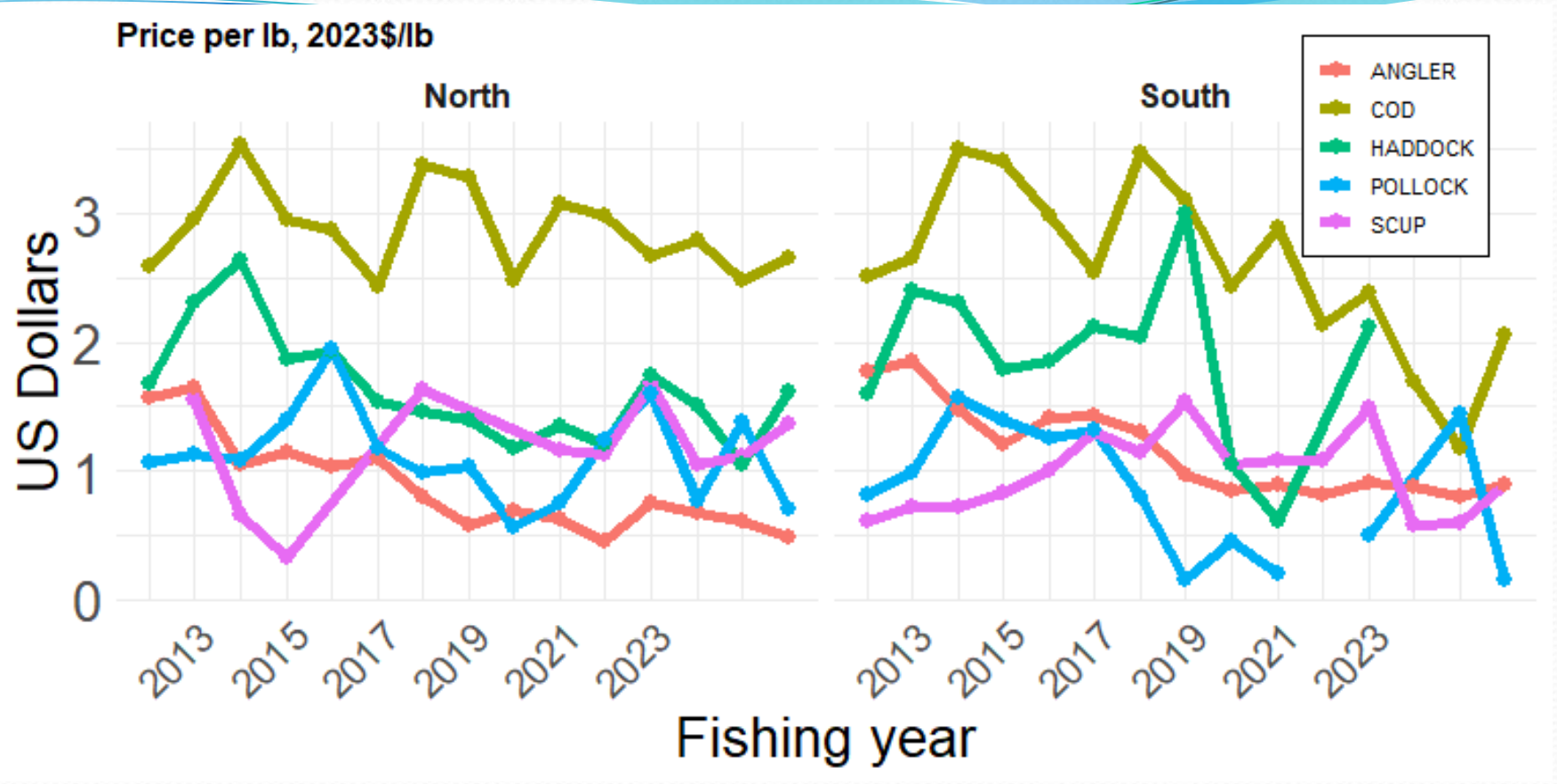


Figure 5: Small-mesh multispecies price trends

- General decline in commonly landed NER finfish prices in both regions, with a significant decline in cod price since 2018 from the southern area.
- Steady decline in monkfish and haddock prices in both regions.



Trends in fish prices by management area. ‘ANGLER’ = Monkfish

3.4 Number of trips and vessels binned by total landings of silver hake

- Orange = Trips landing between 10,000 and 15,000 lb silver hake
- Green = Trips landing between 15,000 and 30,000 lb silver hake
- Blue = Trips landing more than than 30,000 lb silver hake
- Steady decline of trips and vessels targeting whiting in the southern area
- Recent spike in trips and vessels landing between 10,000 and 15,000 lb whiting in 2024 (related to recent increase in possession limit?).
- Trips landings 15,000 to 30,000 lb (the possession limit) predominate in the northern area

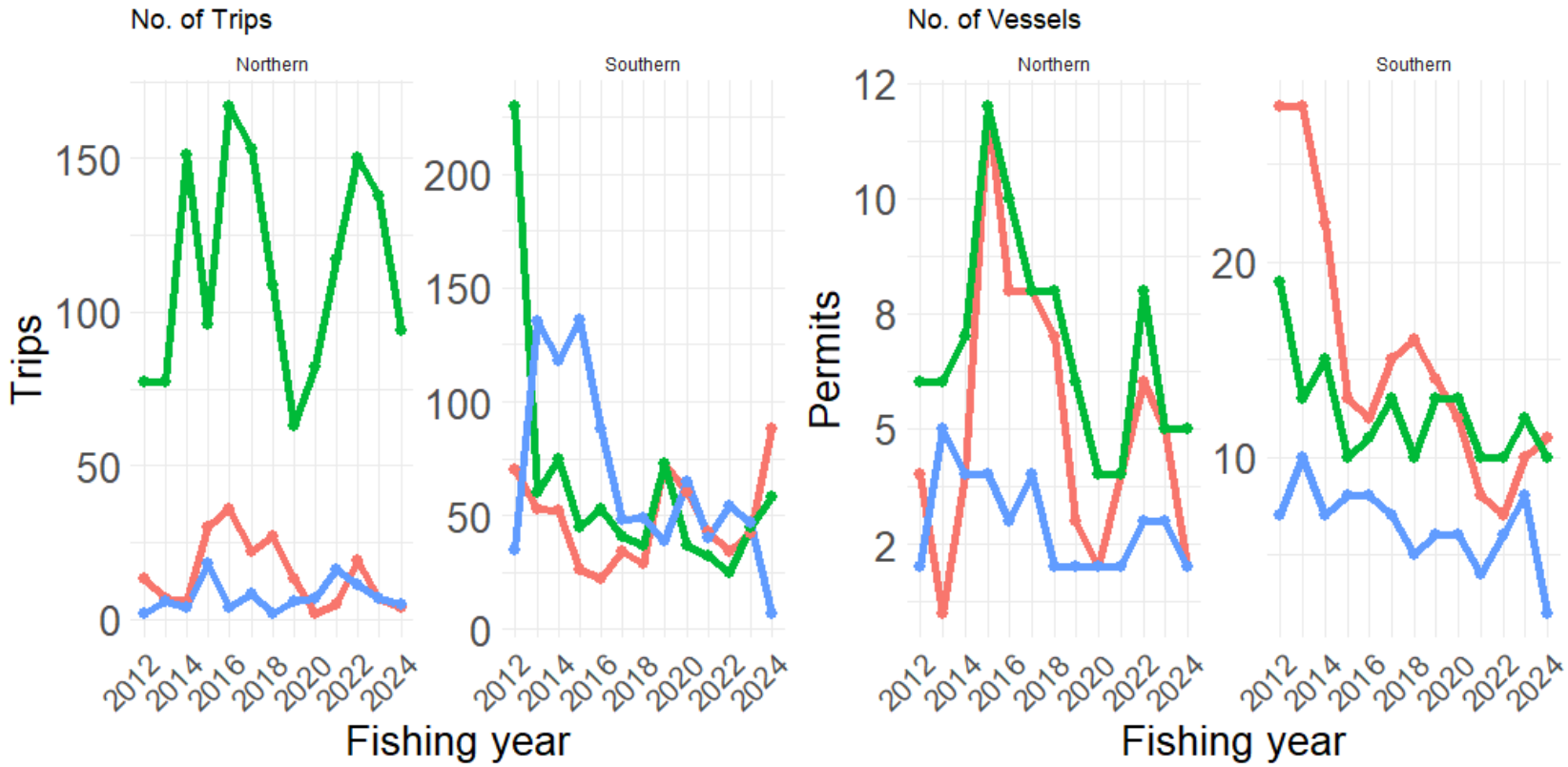
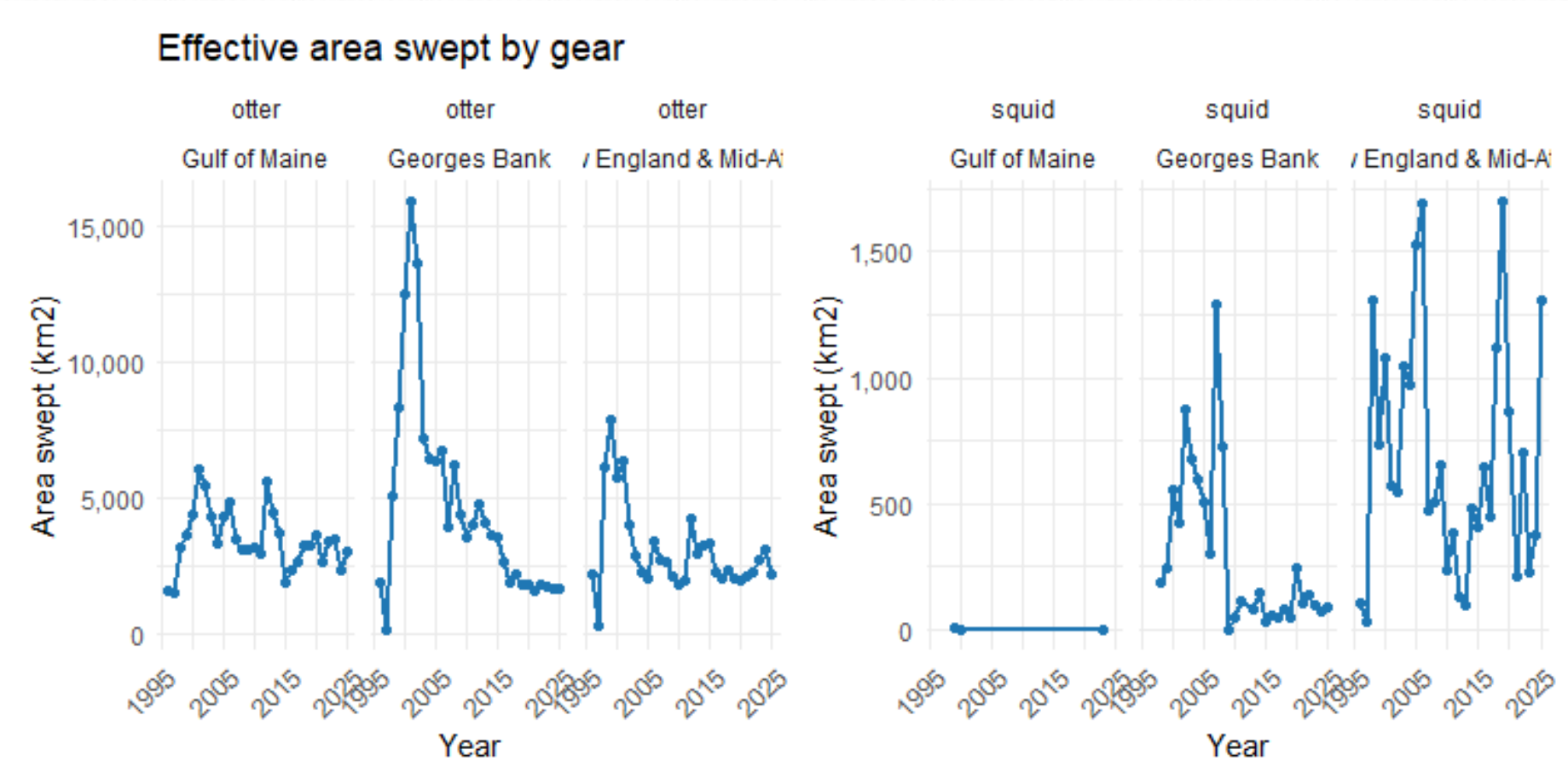


Figure 6: Trends in small-mesh multispecies trips by trip category, North (left) & South (right)

3.5 Effective area swept by gear and area

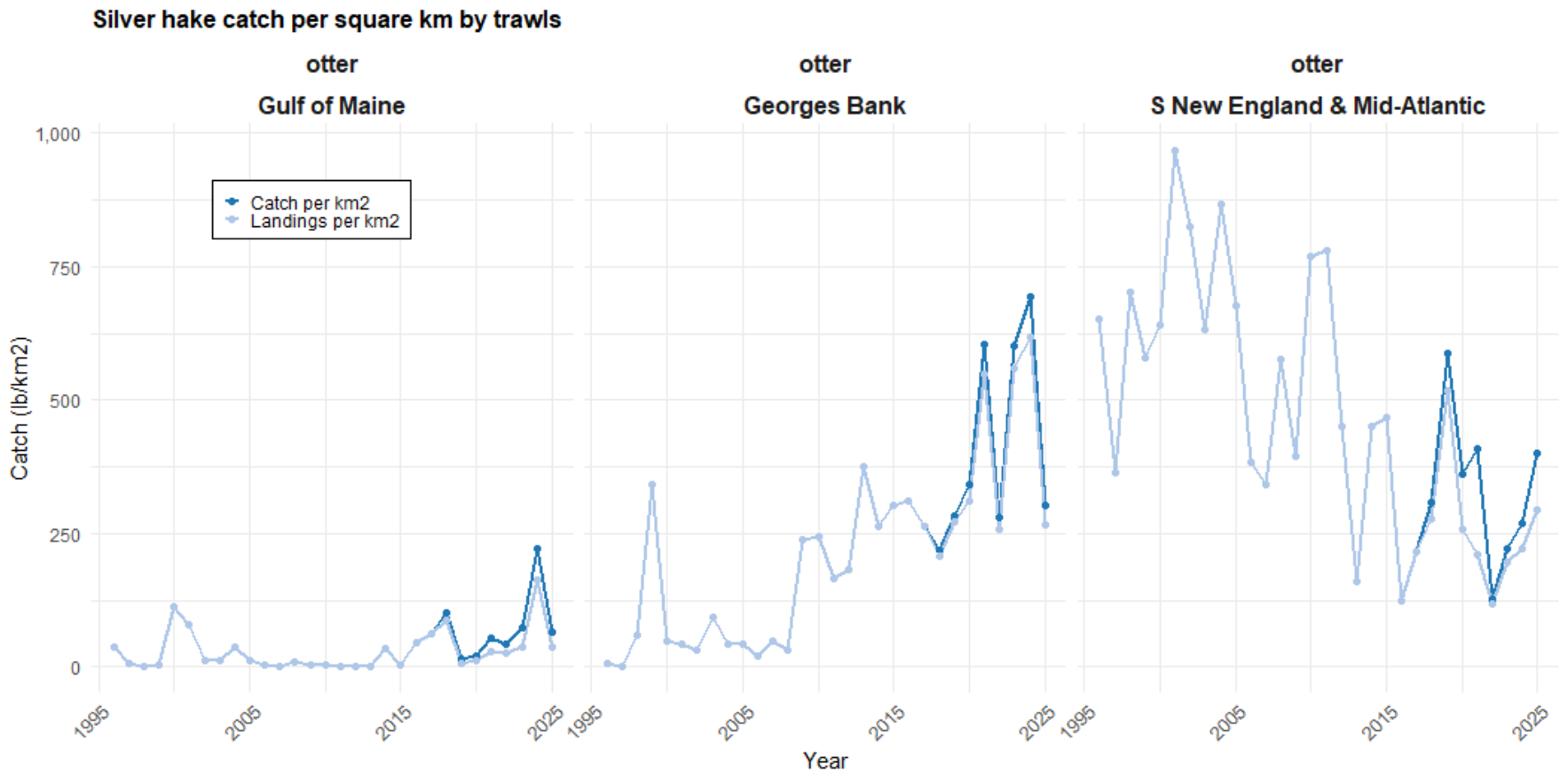
- Catch per area swept trends by region for otter trawls and squid trawls
- Otter trawl effort declines
- Squid trawl effort variable in Southern New England



Otter and squid trawl area swept by area

3.6 Silver hake catch (2017 to present) or Kept (pre-2017) per km2 effective swept area by otter trawls

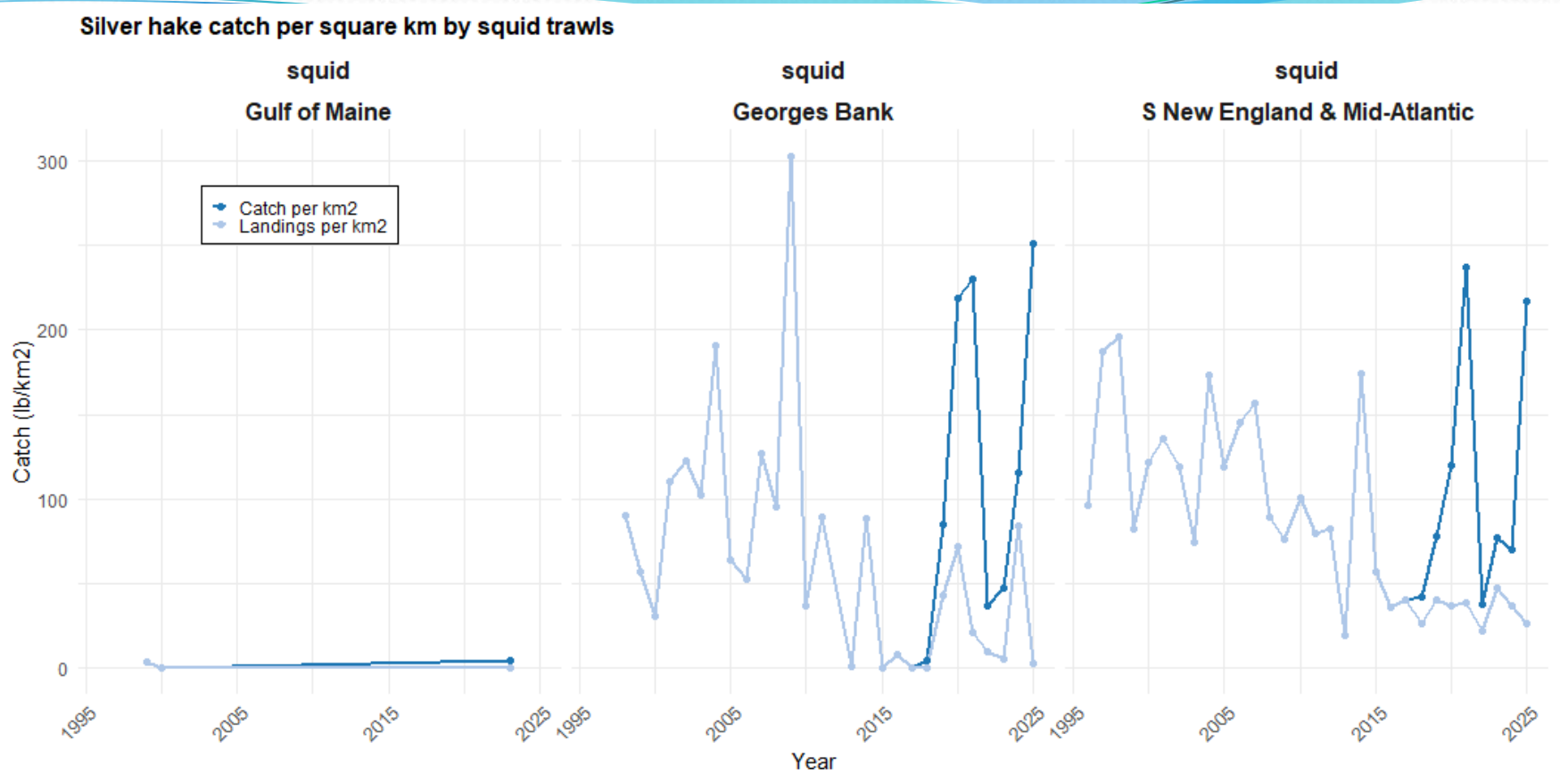
- Increasing commercial CPUE increasing in the Gulf of Maine and Georges Bank, but declining in Southern New England
- Evidence of distribution change



Otter trawl silver hake catch per square km

3.7 Silver hake catch (2017 to present) or Kept (pre-2017) per km2 effective swept area by squid trawls

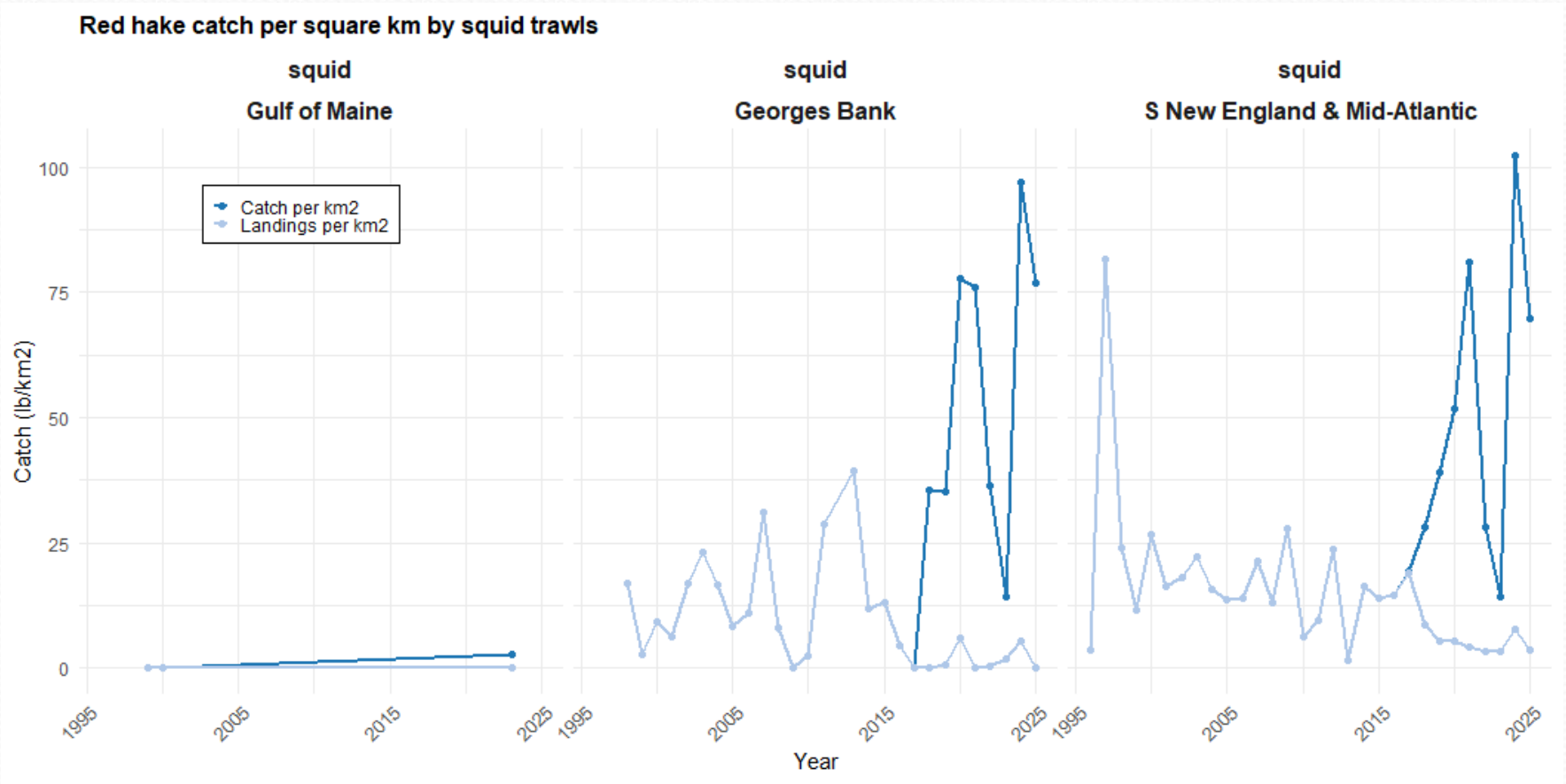
- Minimal squid trawl fishing in the Gulf of Maine
- Greater proportion of silver hake discarded. Considerable increase in 2025 discards.
- Declining CPUE in Southern New England
- Evidence of distribution change



Squid trawl silver hake catch per square km

3.9 Red hake catch (2017 to present) or Kept (pre-2017) per km2 effective swept area by squid trawls

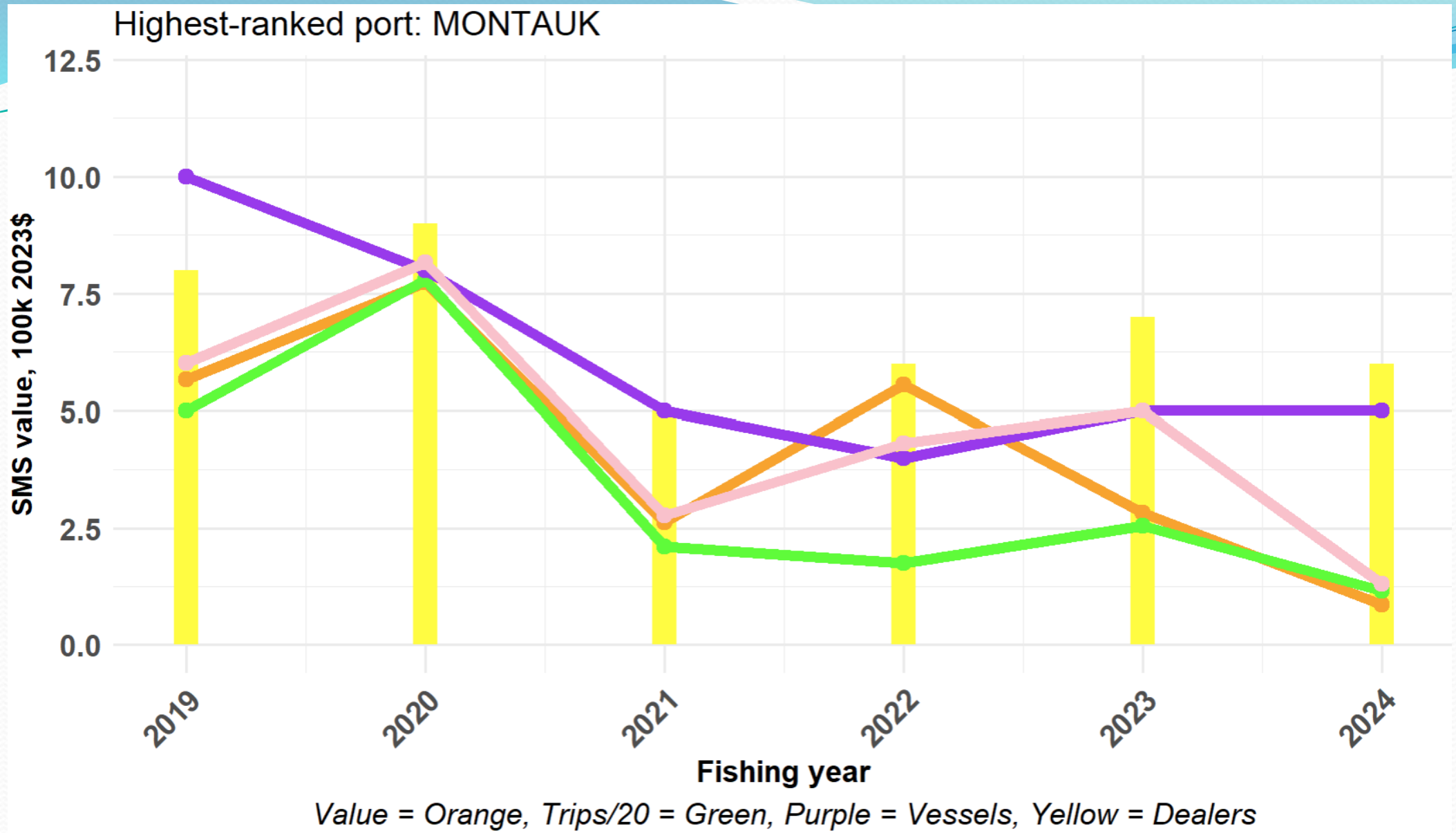
- Declining LPUE in Southern New England
- Much higher proportion of discards compared to silver hake and red hake caught by otter trawls



Squid trawl red hake catch per square km

3.10 Top ports by value, FY 2022-2024

State	Port	Trips	Days absent	Vessels	Ave length	Age	Value (2023$)	Discards	Dealers
RI	POINT JUDITH	3,636	10,515	56	55	43	979,055	5,626,898	9
MA	NEW BEDFORD	289	2,202	12	68	40	958,588	1,362,941	6
MA	GLOUCESTER	1,035	4,347	27	58	36	581,207	3,536,818	8
NY	MONTAUK	1,135	5,387	28	64	39	482,516	3,520,190	13
CT	NEW LONDON	54	862	3	66	45	57,065	515,333	6
NJ	BELFORD	220	408	10	61	53	43,219	294,553	3
CT	EAST HAVEN	141	528	4	58	43	37,317	373,369	3
CT	STONINGTON	432	864	10	47	40	35,102	517,629	5



Montauk commercial activity

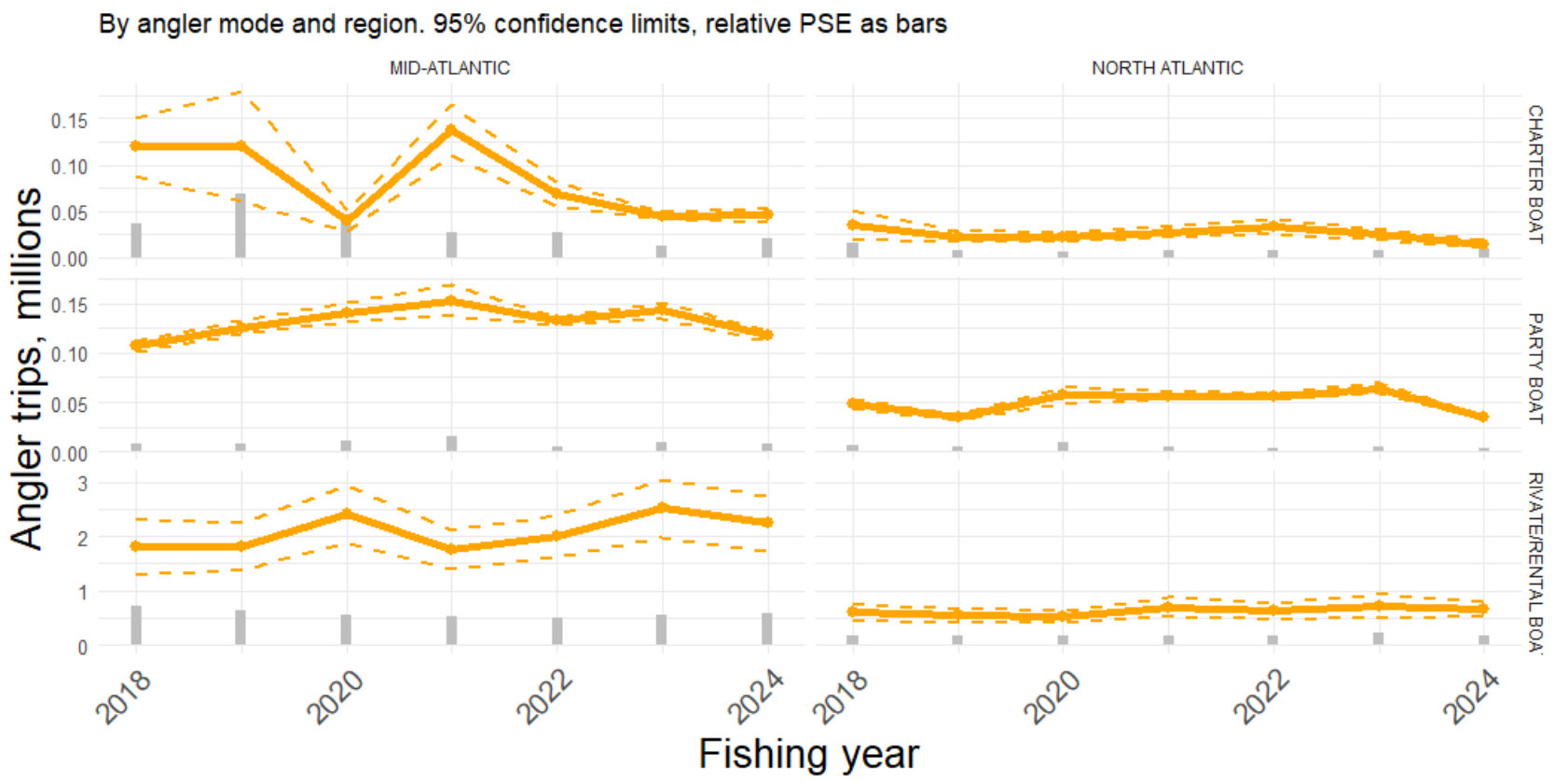
3.3 Economic and Community Importance

3.3.1 Recreational fishery characteristics

- Trends in total angler trips by mode
- Estimated catch (A+B1)
- Trends in angler trips targeting species

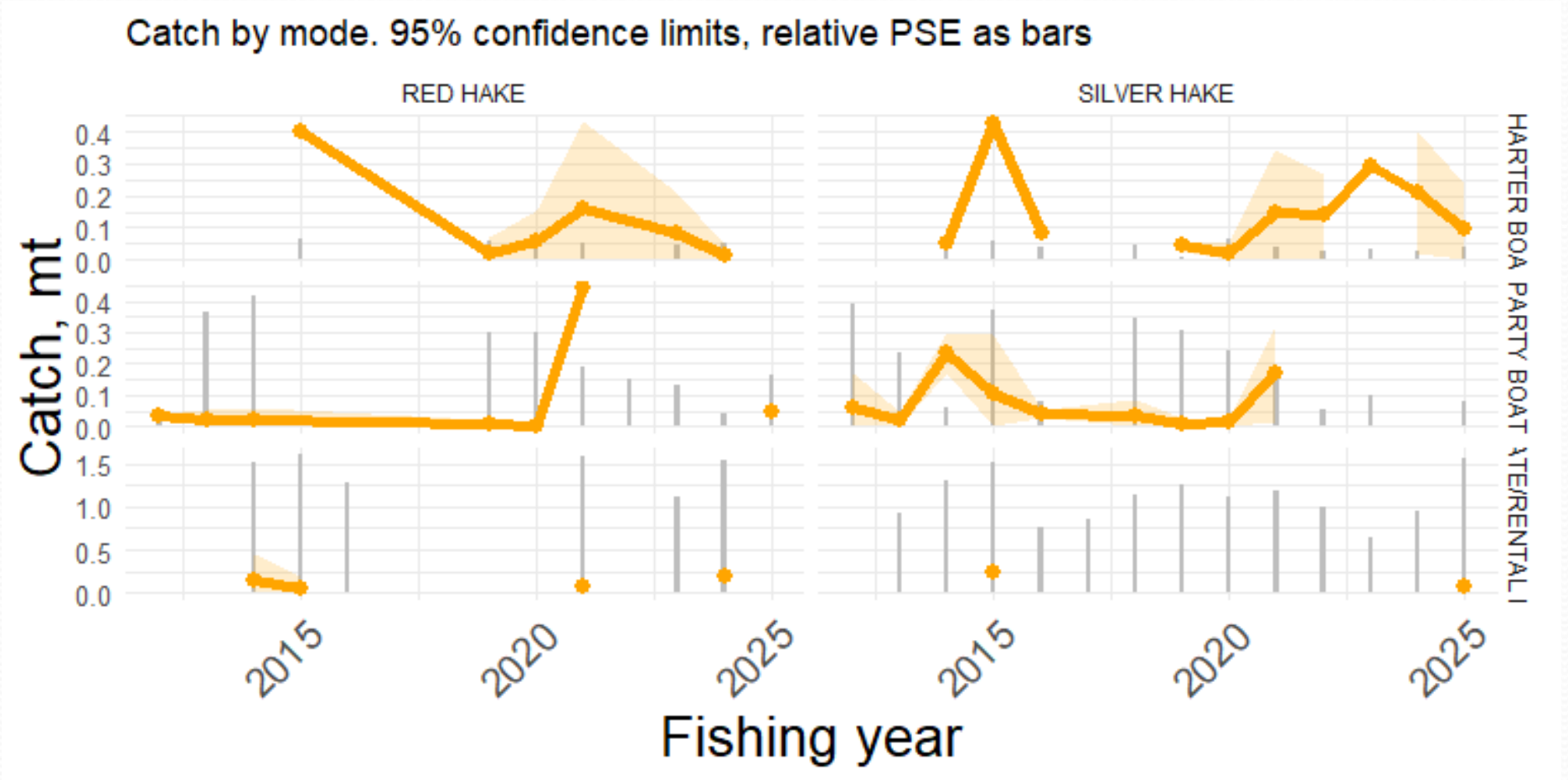
3.11 Recreational fishery characterization

- Anglers and angler trips by mode (Charter, Party, Private Boat)
- Catch: management uncertainty and PSE
- Recreational fishing ports and community participation
- Other factors



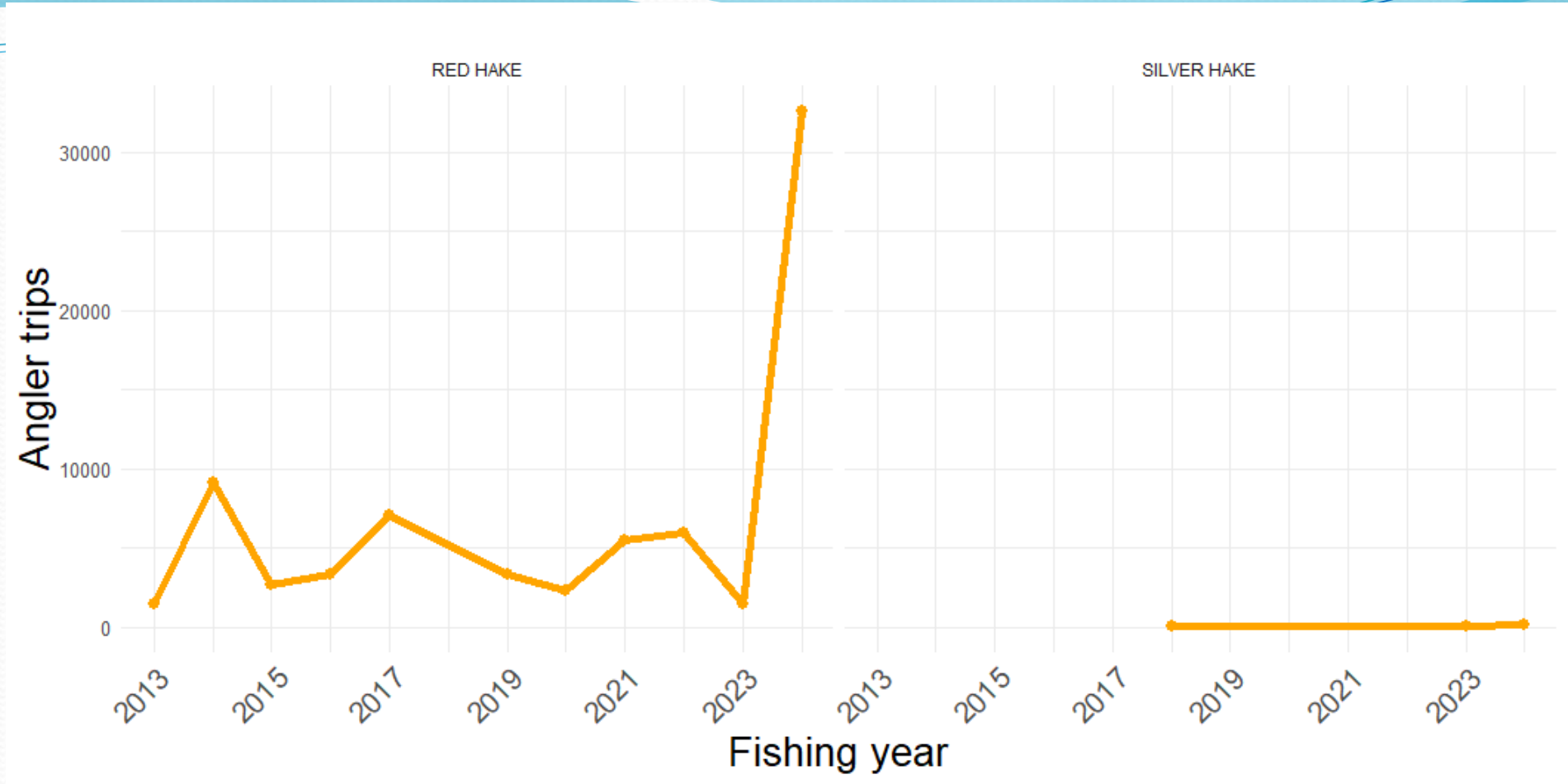
Angler trips by region and mode, MRIP query tool

3.12 MRIP Estimated Catch by Mode



North Atlantic region catch by region and mode, MRIP query tool

3.13 Angler trips targeting by species



Trips targeting red and silver hakes, MRIP query tool

Next steps

- Revise report to meet risk policy beta needs as required
- Improve integration of industry advisory panel observations and recommendations
- Refine workflow process for more automation and efficiency
- Adapt workflow to other FMPs and stocks to allow efficient report generation