

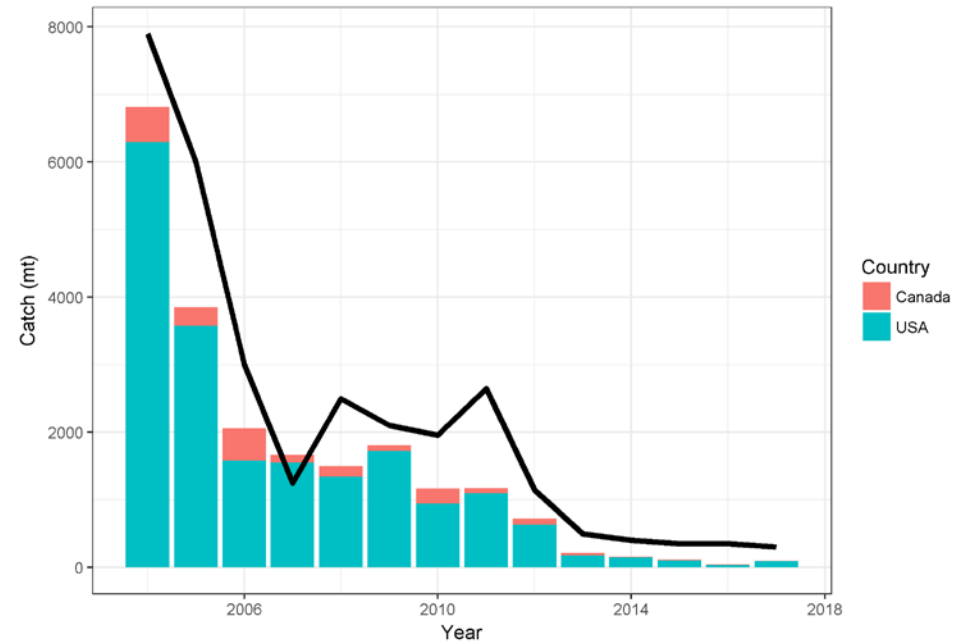
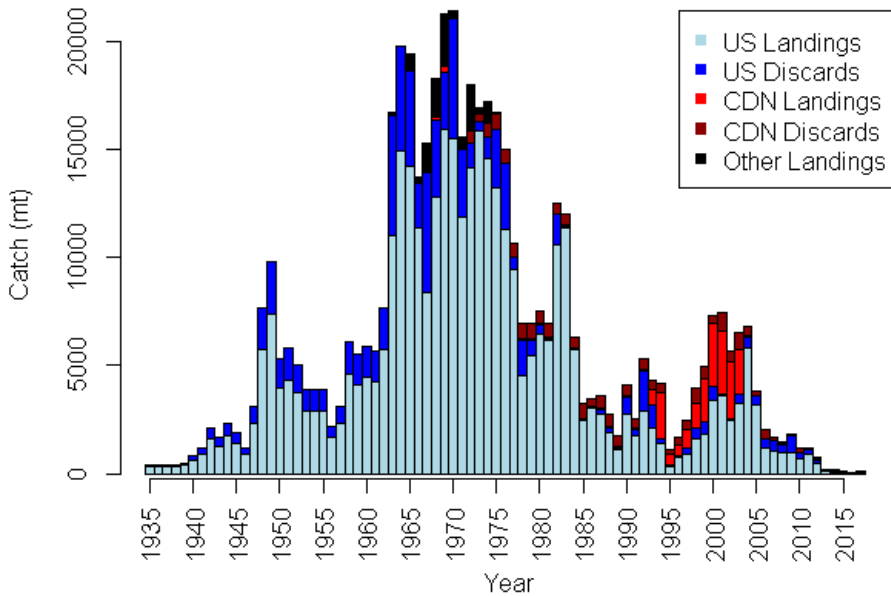
# Stock Assessment of Georges Bank Yellowtail Flounder for 2018

Results of TRAC 10-12 July 2018

Woods Hole, MA, USA

Presentation for NEFMC SSC  
15 August 2018, Boston

# Catch

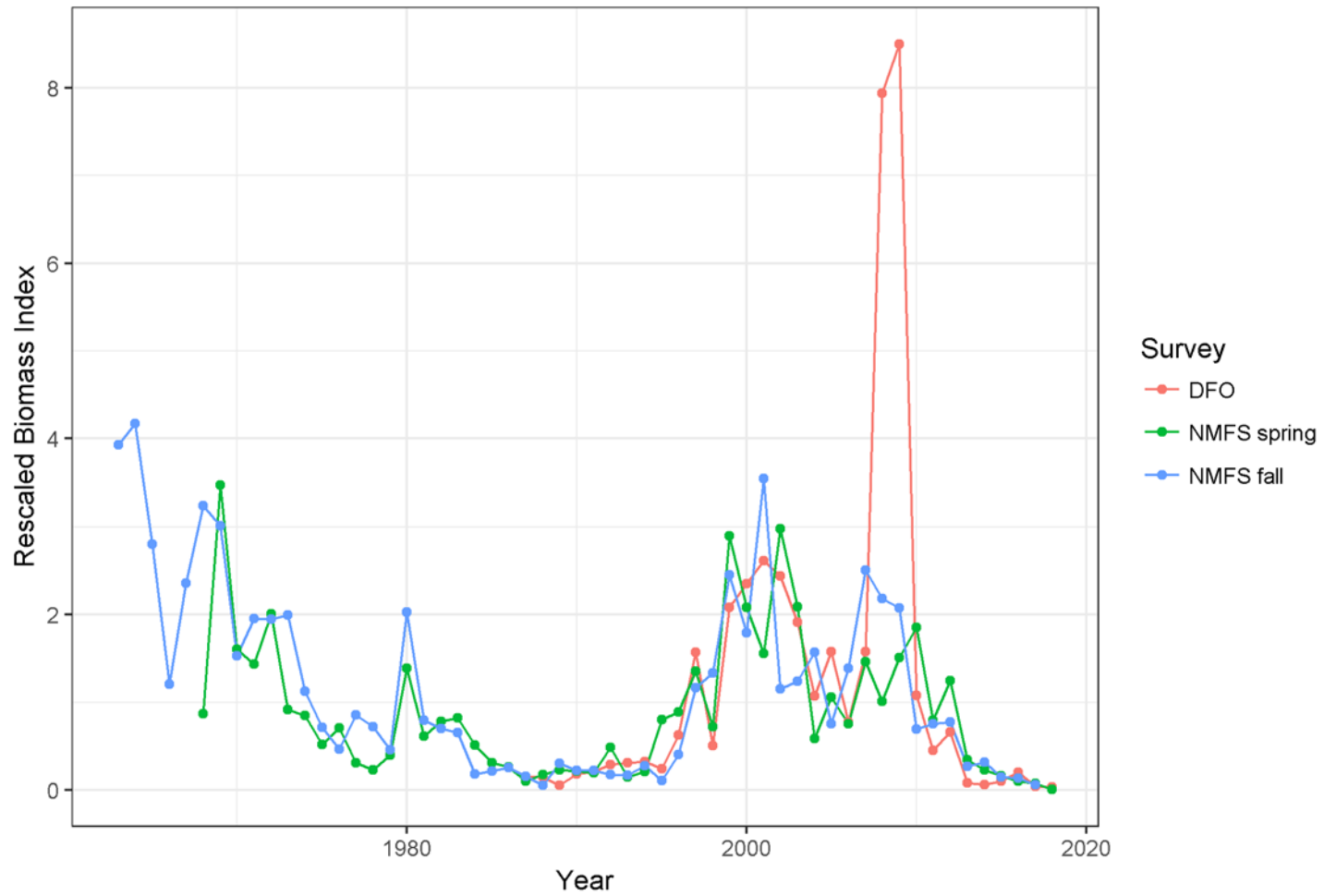


	metric tons						
	Landings	Discards	Catch		Landings	Discards	Catch
US	35	57	92	US	37%	60%	97%
Canada	0	2	3	Canada	1%	2%	3%
Sum	35	59	95	Sum	37%	63%	100%

2017 2<sup>nd</sup> lowest in 83 years

Discards > Landings in 2017 (only 2<sup>nd</sup> time this has happened)

# Surveys



All three surveys track well, with exception of 2008 and 2009  
DFO surveys (large tow effects)

# Survey Time Series

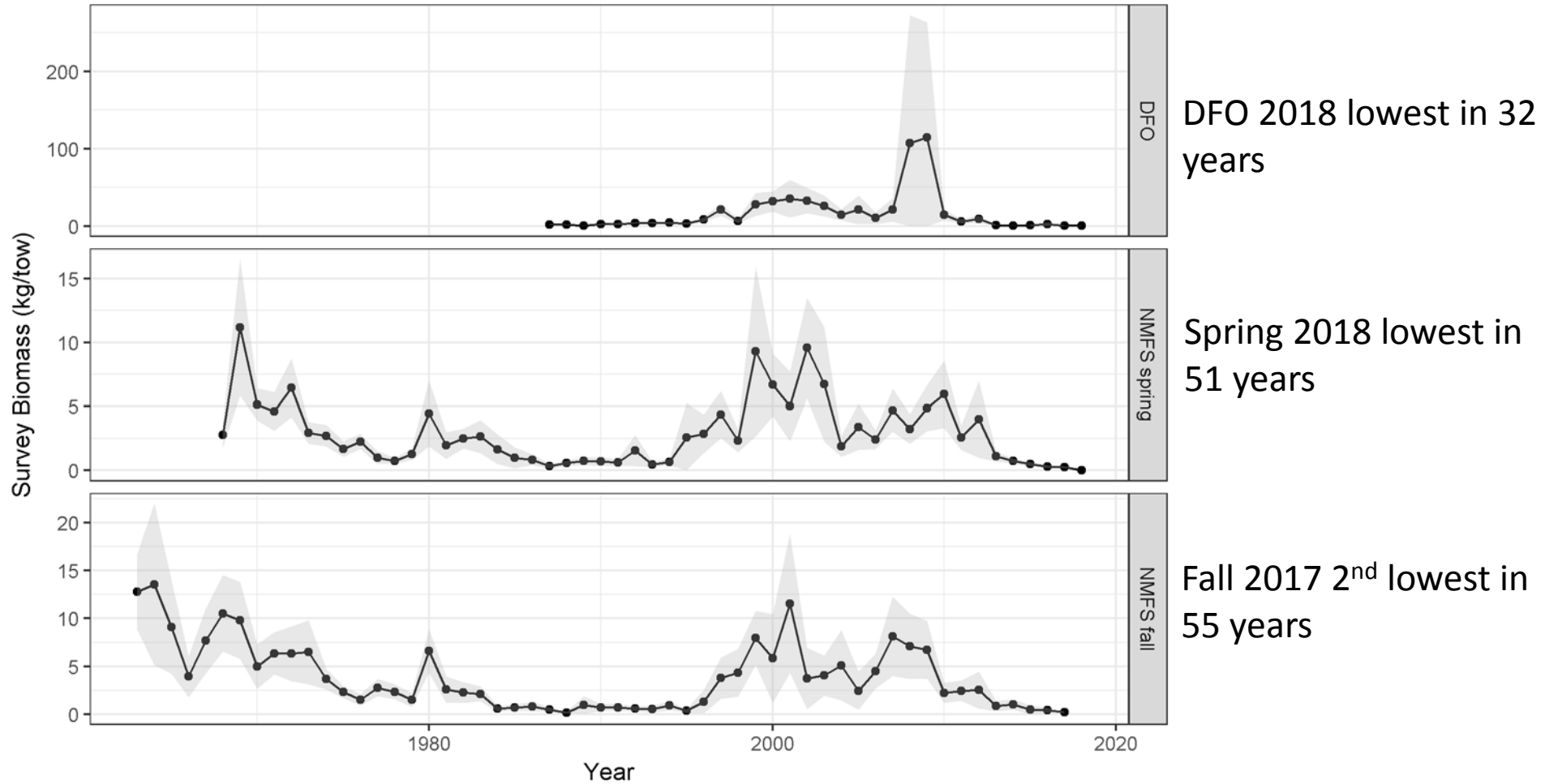
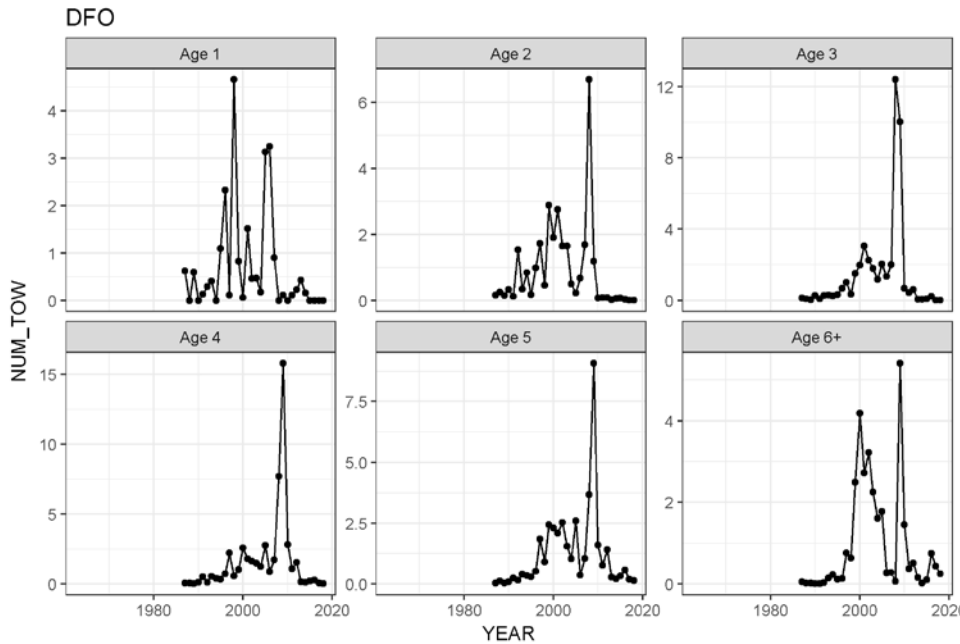


Fig 9

# Surveys at Age



Low values recently at all ages  
No indication of incoming recruitment

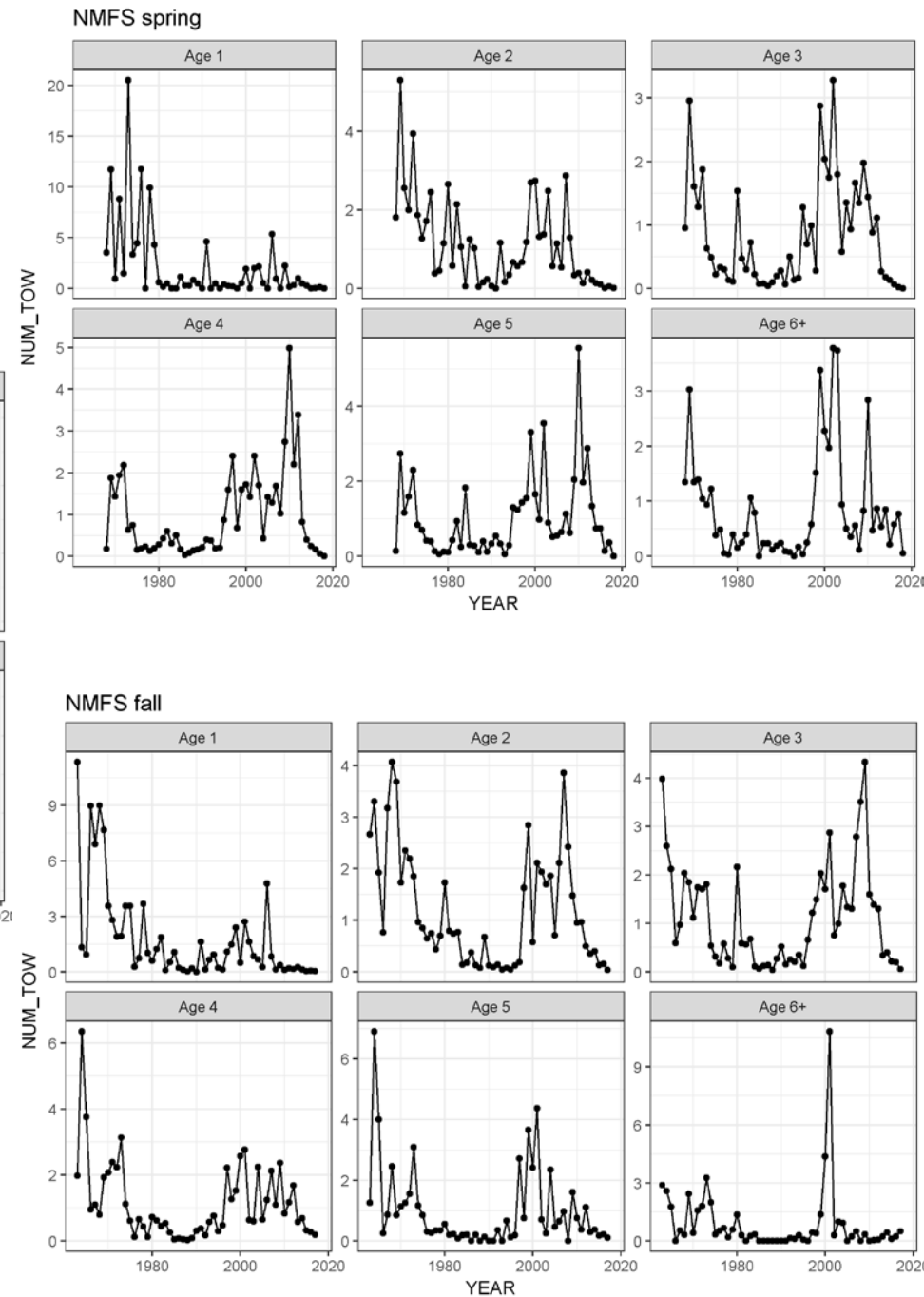
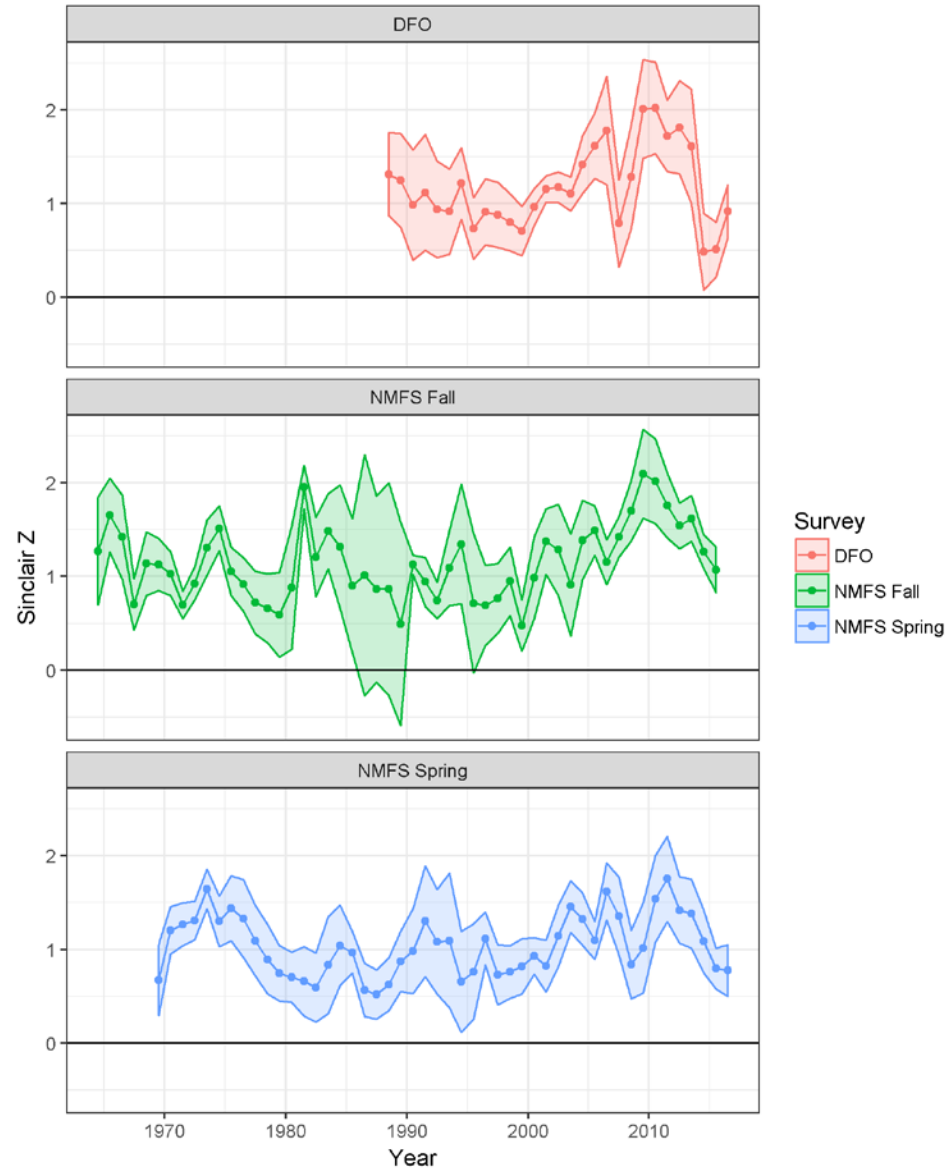
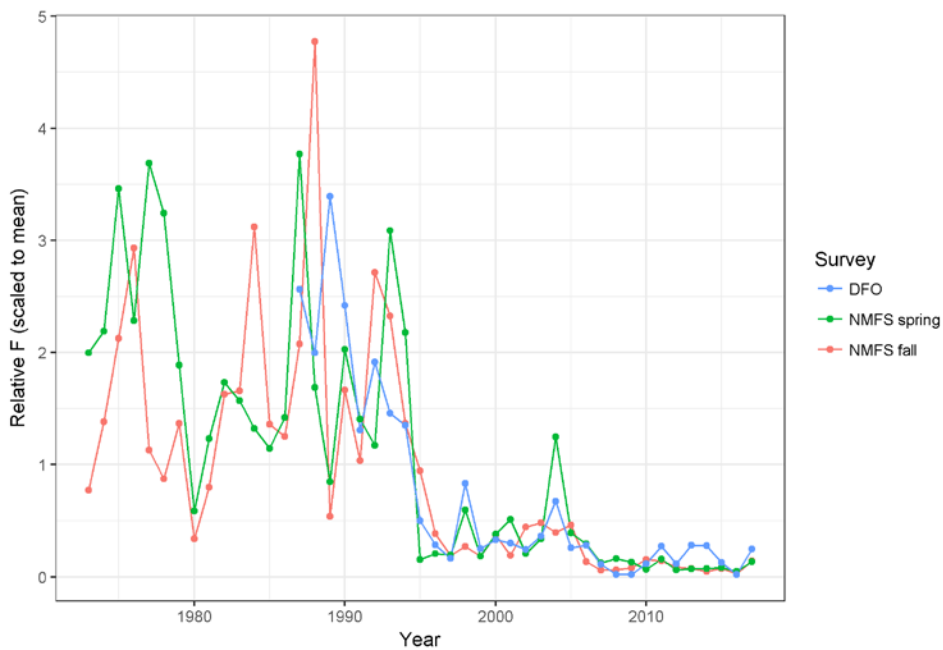


Fig 13a-c

# Relative F and Survey Z



Figs 17-18

# 2019 Catch Advice

Quota split for 2019

USA 76%

Canada 24%

Year	Biomass (mt) Wings				Exploitation rate	
	DFO	Spring	Fall (year-1)	Average	0.02	0.06
					Catch Advice (mt)	
2010	29452	68752	83490	60565	1211	3634
2011	12344	29621	27821	23262	465	1396
2012	18113	46209	30354	31559	631	1894
2013	2249	12766	31199	15404	308	924
2014	1654	8564	10828	7015	140	421
2015	2650	5861	12682	7064	141	424
2016	5569	3610	5811	4997	100	300
2017	1104	2819	5432	3118	62	187
2018	812	143	2424	1126	23	68

Assmt Year	Quota Year	Quota (mt)	Catch (mt)	Quota/Avg	Catch/Avg	Model Type
2009	2010	1956	1170	3%	2%	VPA
2010	2011	2650	1171	11%	5%	VPA
2011	2012	1150	725	4%	2%	VPA
2012	2013	500	218	3%	1%	VPA
2013	2014	400	159	6%	2%	VPA
2014	2015	354	118	5%	2%	Empirical
2015	2016	354	44	7%	1%	Empirical
2016	2017	300	95	10%	3%	Empirical
2017	2018	300		27%		Empirical
mean		885	462	8%	2%	

Note: Quota/Avg 2010-2017 mean = 6%

Tables 12-13

# Summary

- 2017 catch = 95 mt
- Declining surveys despite low catch indicates a poor state of the resource
- Low relative  $F$ , declining but high survey  $Z$
- Low recent recruitment
- Empirical Approach used
- TRAC recommends 68 mt quota for 2019
  - Based on 6% exploitation rate



# Questions?