Aleutian Islands walleye pollock assessment 2016
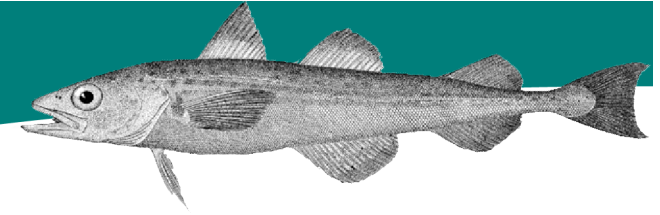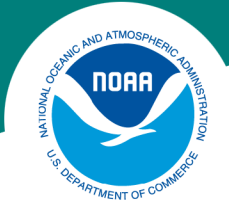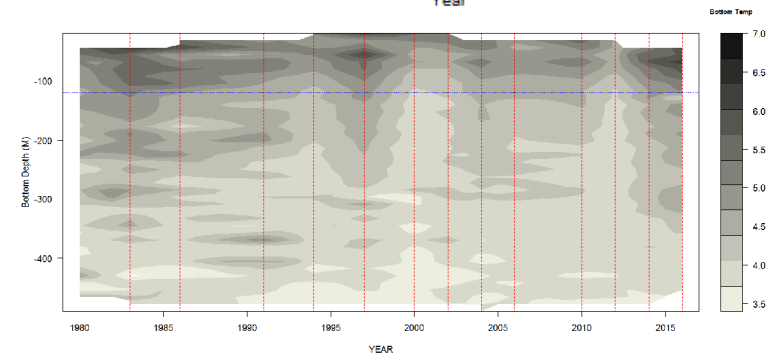
Steve Barbeaux, James Ianelli, and Wayne Palsson
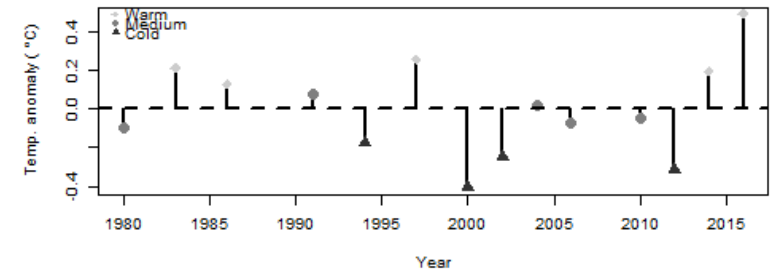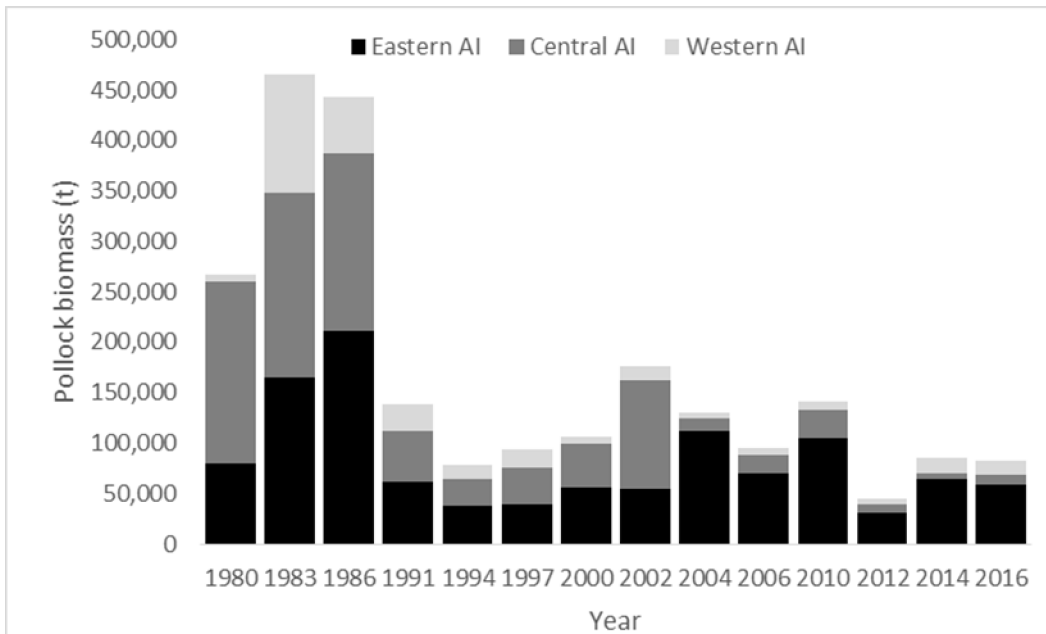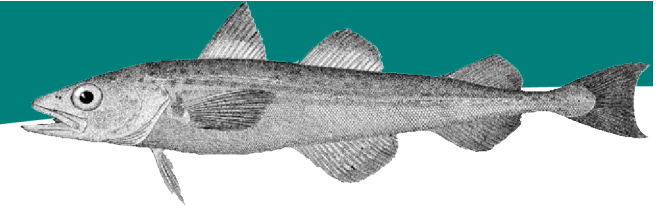
NPFMC Plan Team, Nov. 15, 2016
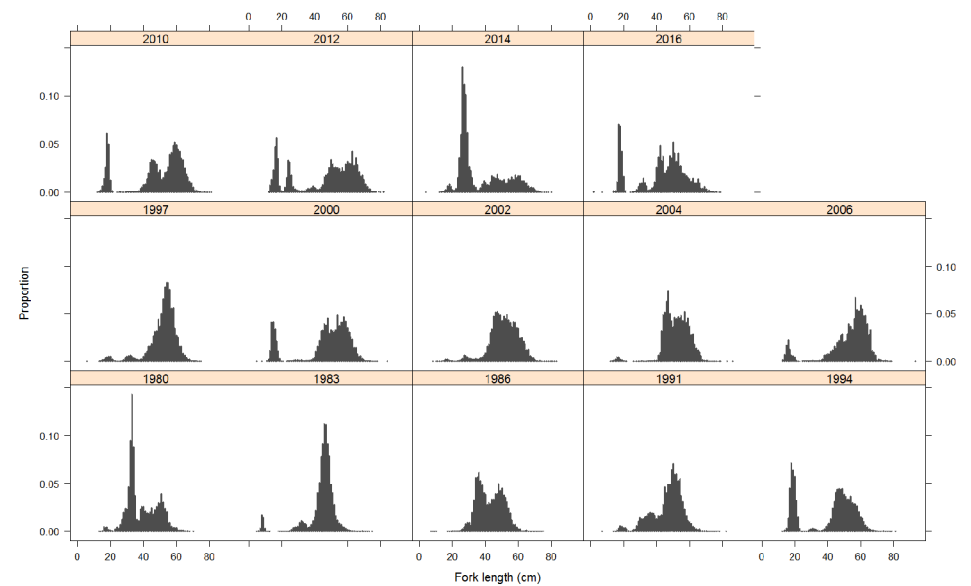
NOAA FISHERIES SERVICE
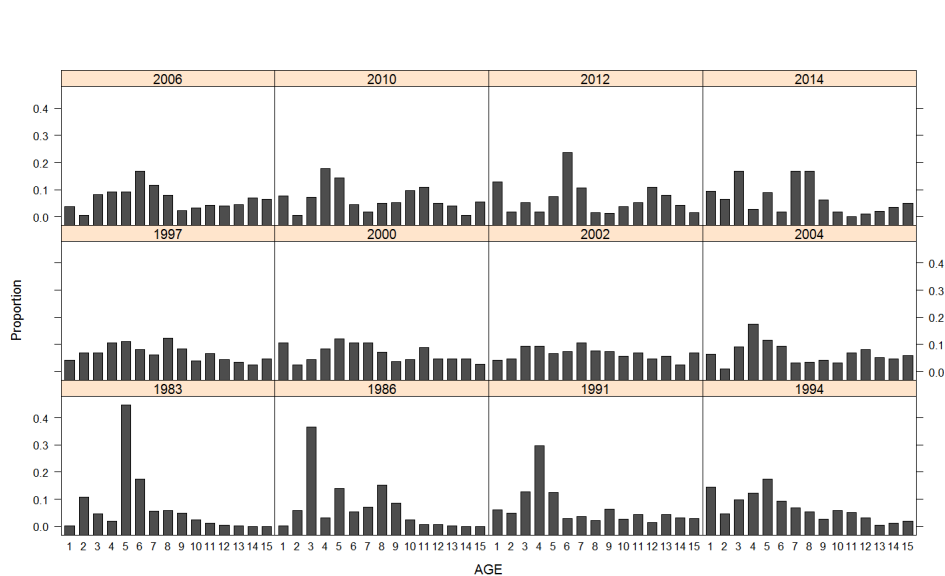
2016 Bottom trawl survey

- 83,070 t, ↓ 2.6% from 2014
- Distribution approximately the same
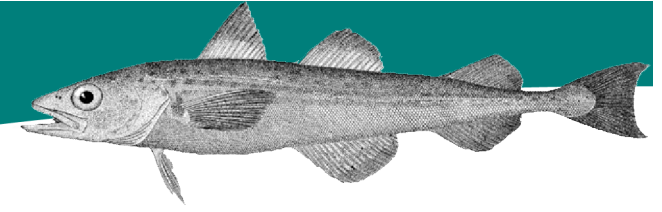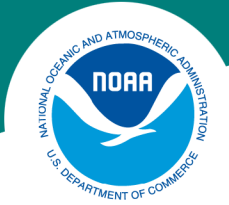- Warmest bottom temps. on record
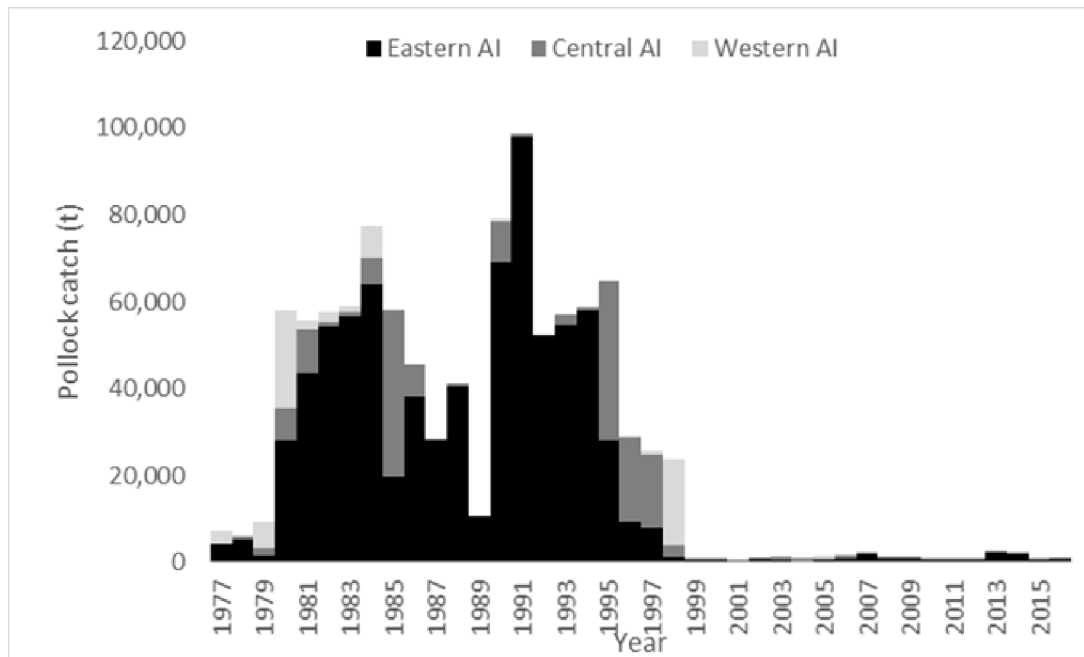
Survey age and size composition

- 2011, 2007, and 2006 year classes dominant in 2014 age data

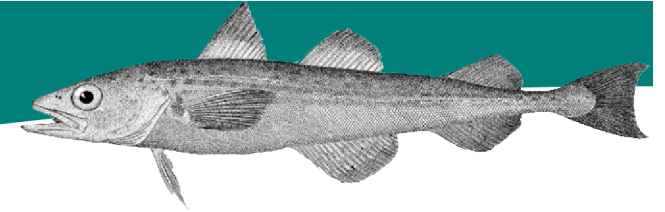- Size composition data indicates four modes from 2016 survey
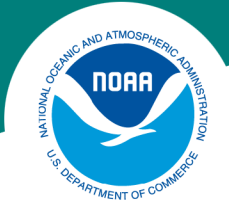
AI pollock fishery

- 62 t directed fishery in 2015, 0 t in 2016
- Total of 916 t in 2015
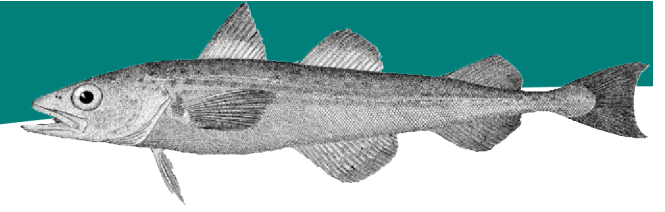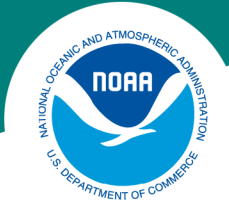- Total of 1,288 t in 2016, as of October 28

Fishery age composition data
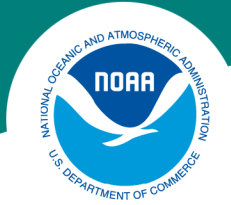
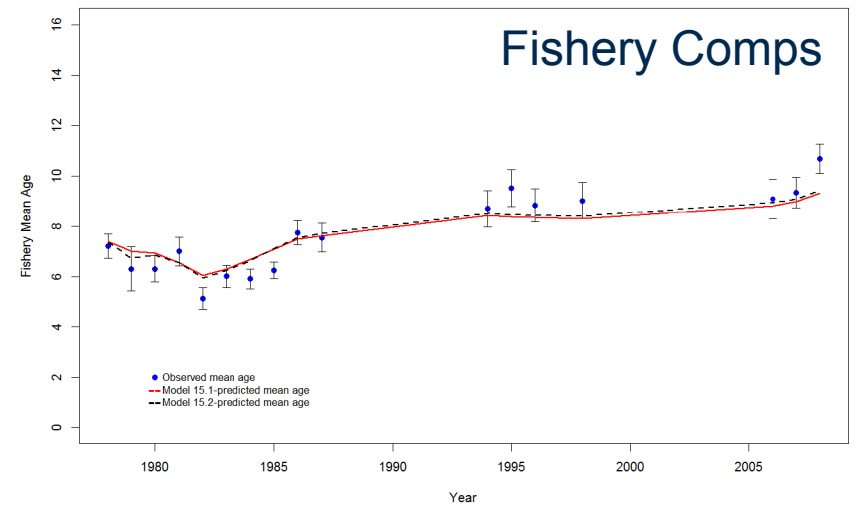- No new fishery age data since 2008
  - No fishery = no new data

2016 Assessment models
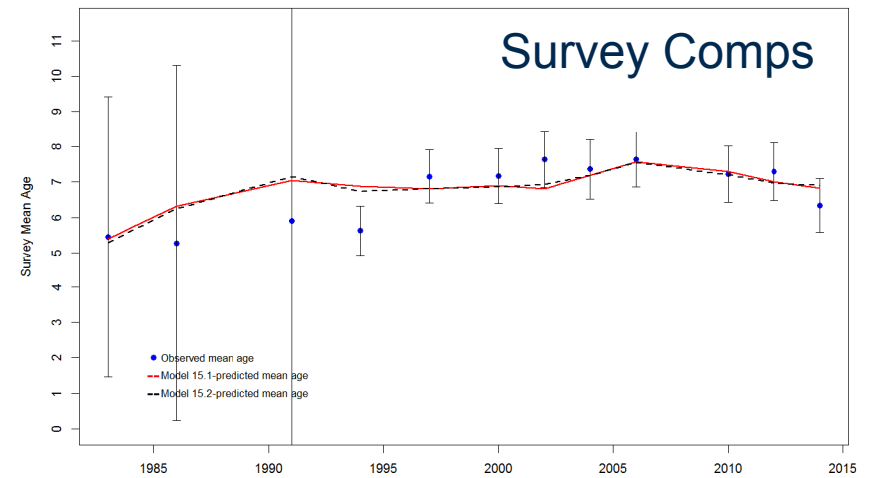
- Same as 2015 models
  - Model 15.1 – same as last year's management model
    - AMAK age-structured model with block selectivity on single fishery
  - Model 15.2 – same as last year's alternative model
    - Model 15.1 with age specific natural mortality
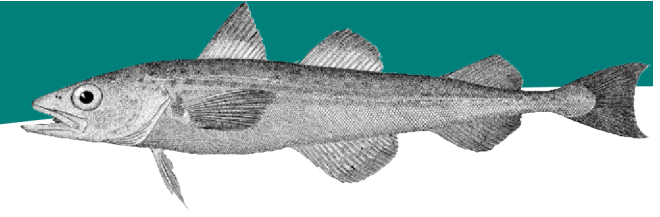
Fit to survey index and comps
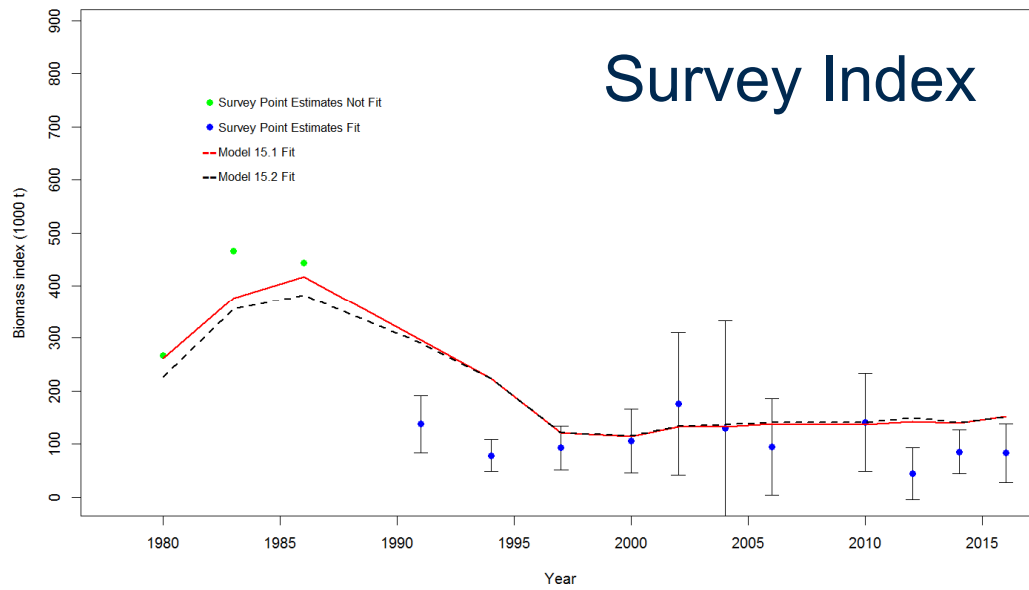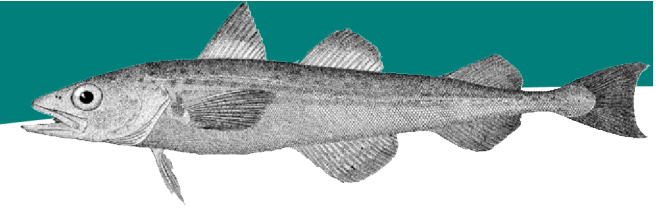
Selectivity and fits to age composition

Survey age composition

Fishery age composition

Model 15.1 Results

Mohn's ρ = 0.09
Woods Hole ρ = 0.012

Recommendations

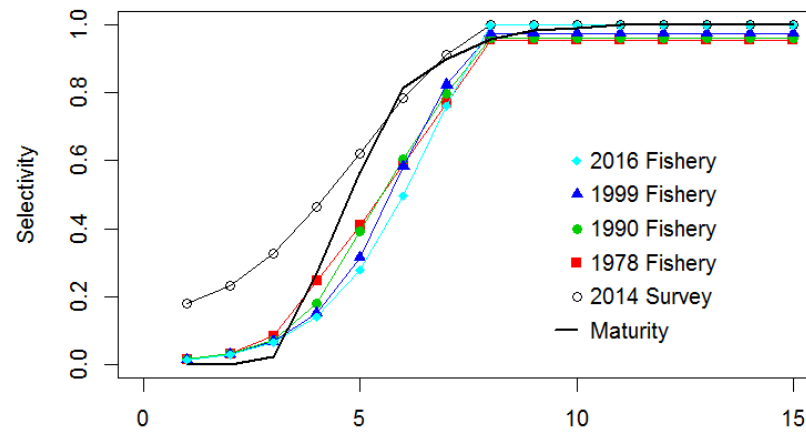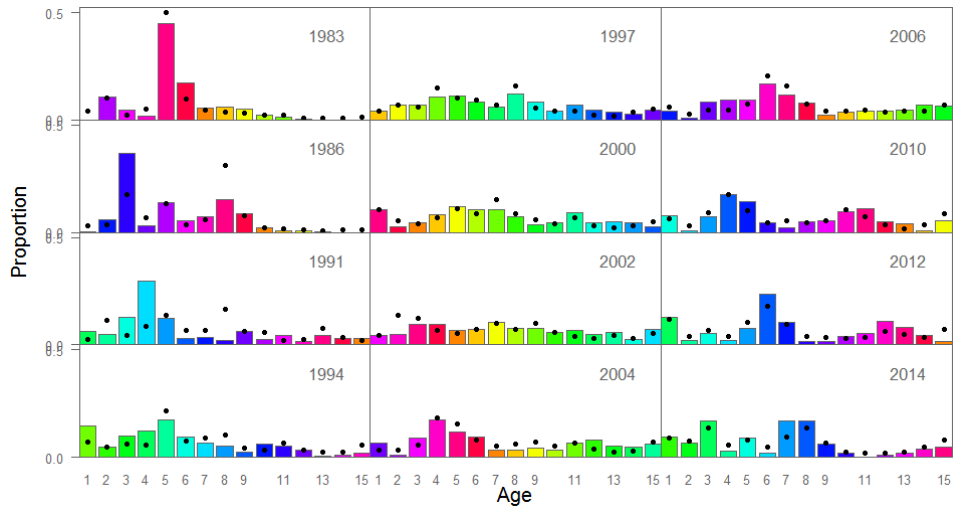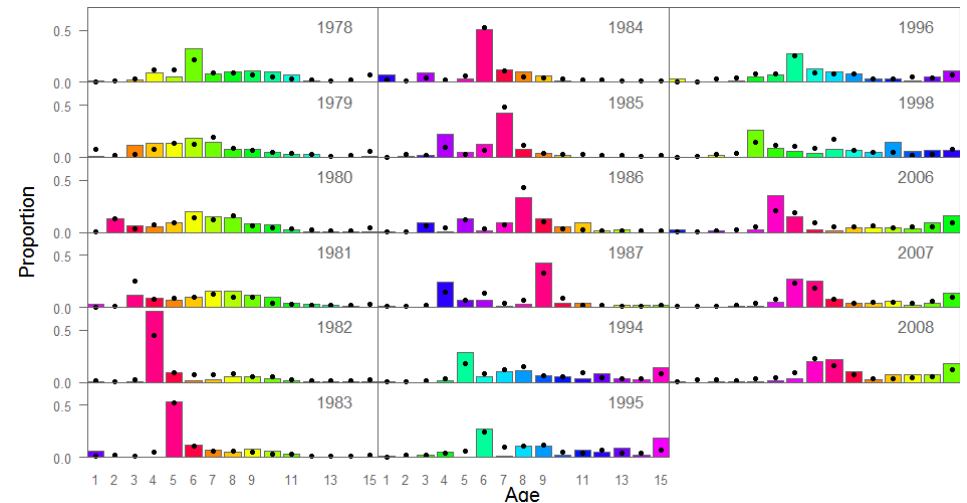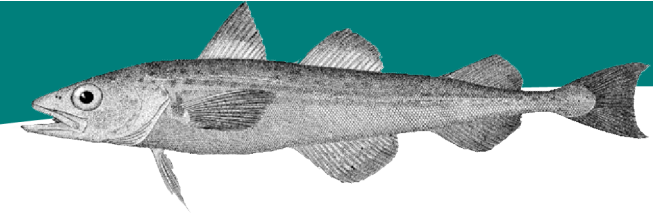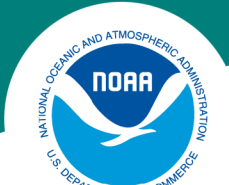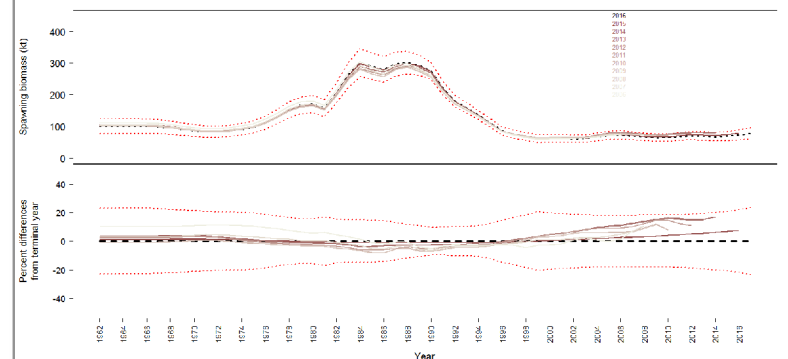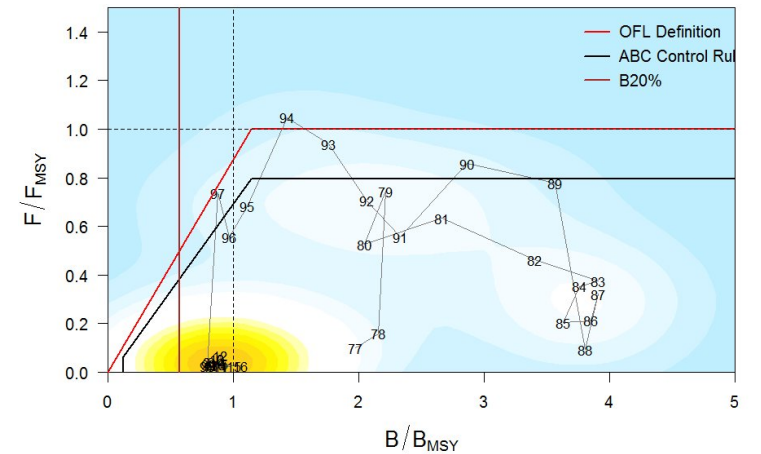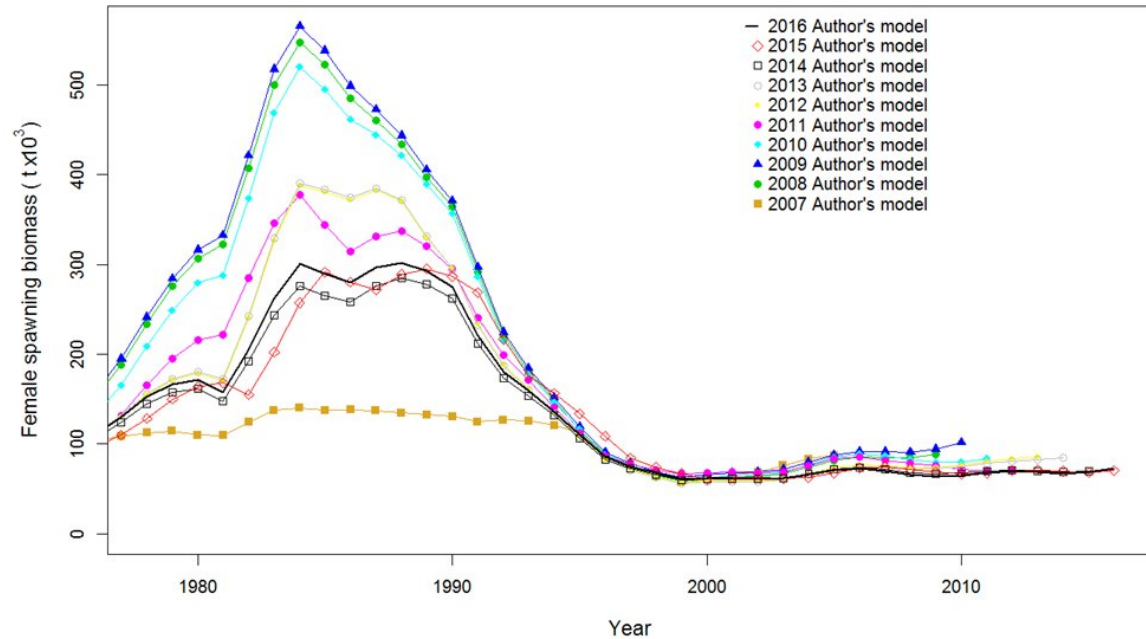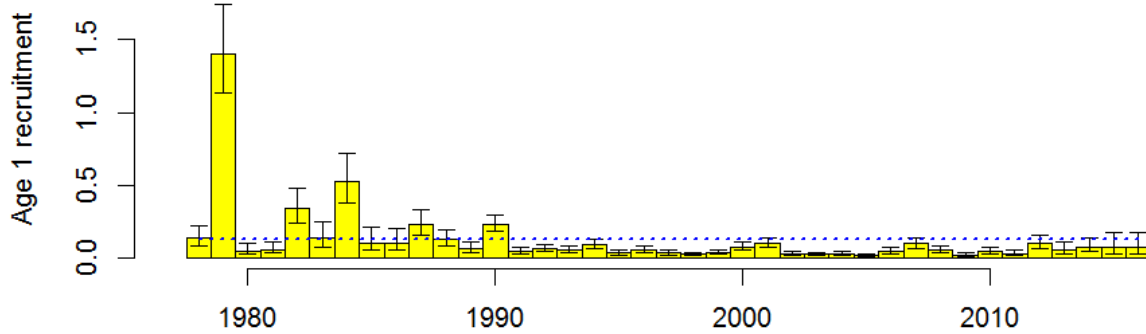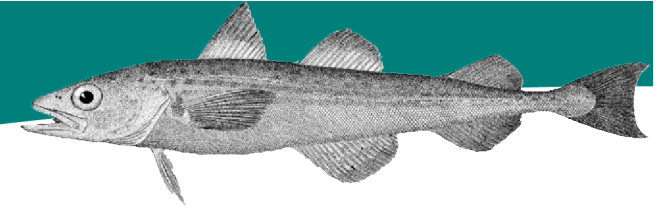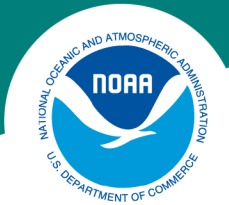|	As estimated or specified last year for:		As estimated or recommended this year for:	
Quantity	2016	2017	2017	2018*
M (natural mortality rate)	0.18		0.19	
Tier	3b		3b	
Total (age 1+) biomass (t)	241,929	264,781	250,221	271,831
Female spawning biomass (t)				
Projected	74,377	79,693	77,579	81,545
$B_{100\%}$	206,962		203,100	
$B_{40\%}$	82,785		81,240	
$B_{35\%}$	72,437		71,085	
F_{OFL}	0.34	0.37	0.378	0.397
$maxF_{ABC}$	0.27	0.29	0.304	0.319
F_{ABC}	0.27	0.29	0.304	0.319
OFL (t)	39,075	44,455	**43,650**	**49,291**
maxABC (t)	32,227	36,664	**36,061**	**40,788**
ABC (t)	32,227	36,664	**36,061**	**40,788**
	As determined this year for:		As determined this year for:	
Status	2014	2015	2015	2016
Overfishing	no	n/a	no	n/a
Overfished	n/a	no	n/a	no
Approaching overfished	n/a	no	n/a	no