

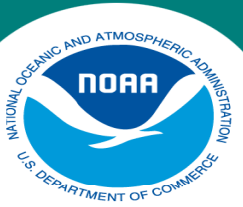
Science, Service, Stewardship



BSAI Other Flatfish 2016

M. Elizabeth Conners, Tomas K. Wilderbuer, Dan Nichol
Alaska Fisheries Science Center

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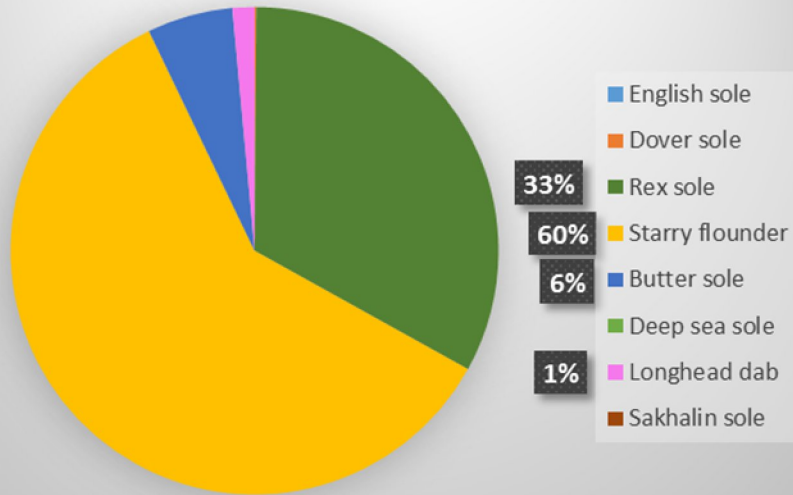


BSAI Other Flatfish

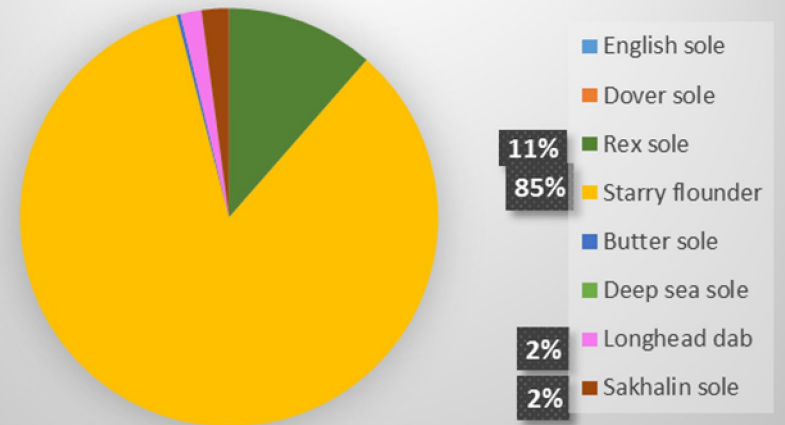
- Includes all species not in individual assessments. Dominated by starry flounder on EBS shelf, Rex sole on EBS slope, Rex sole and Dover sole in AI.
- Time series trends increasing for starry flounder on shelf, decreasing for some rarer species. AI biomass high for Rex and Dover sole 2010 – 2016. Overall survey biomass fairly stable in all regions.
- Catch primarily incidental, mostly starry flounder and Rex sole. 2016 catch similar to previous years, well below ABC.

BSAI Other Flatfish - Species Composition

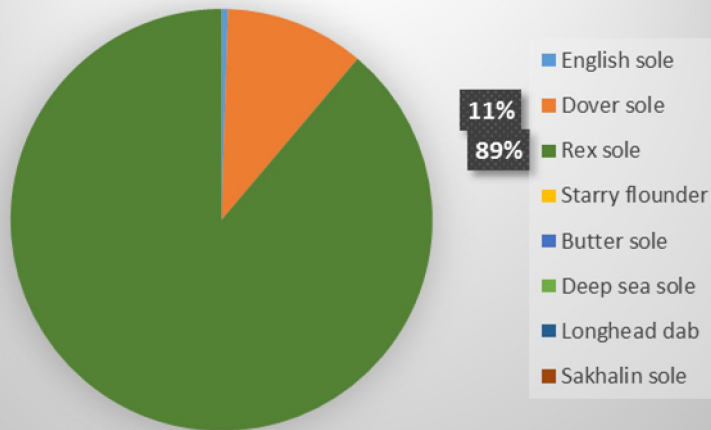
2016 Catch 2,679 t



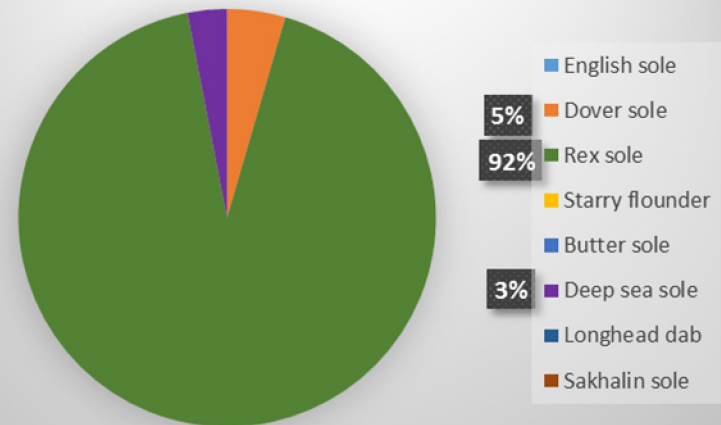
2016 Shelf Survey 97,291 t

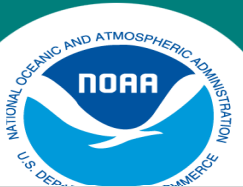


2016 AI Survey 12,200 t

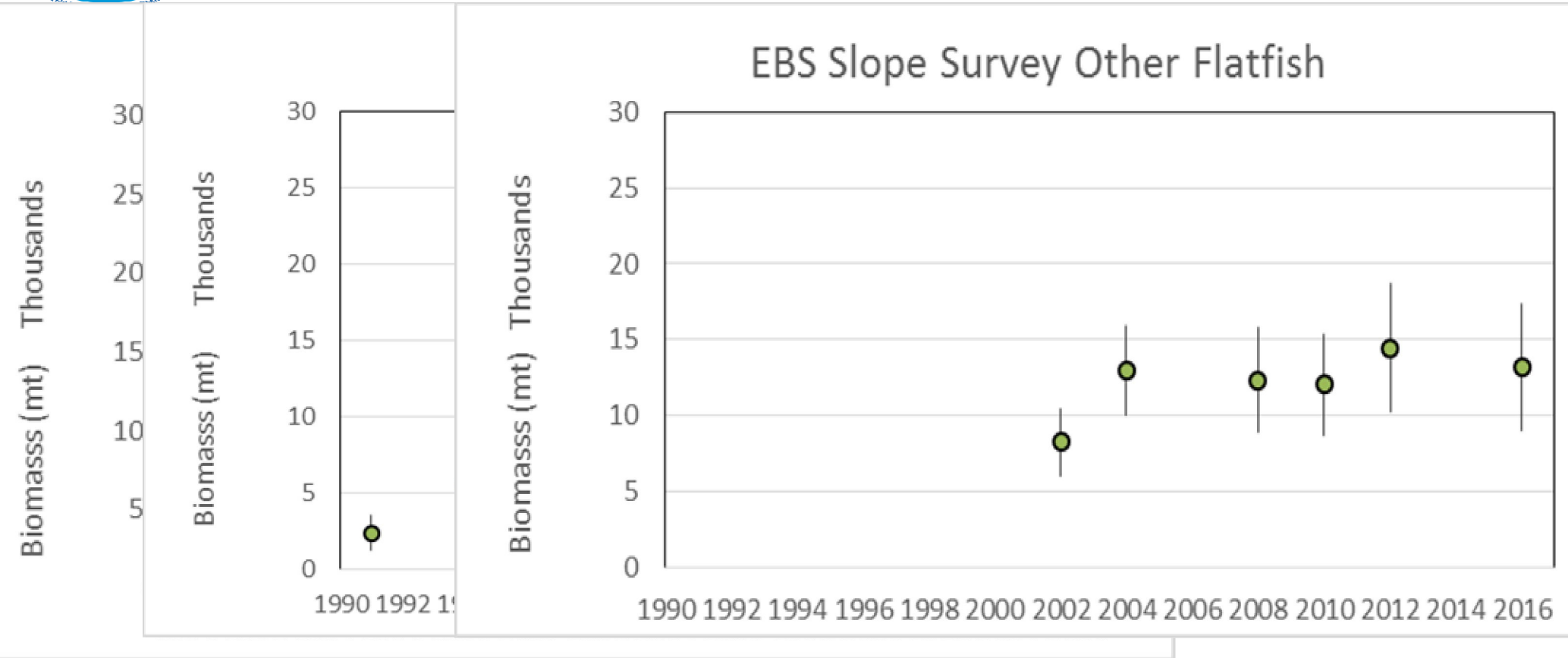


2016 Slope Survey 13,672 t



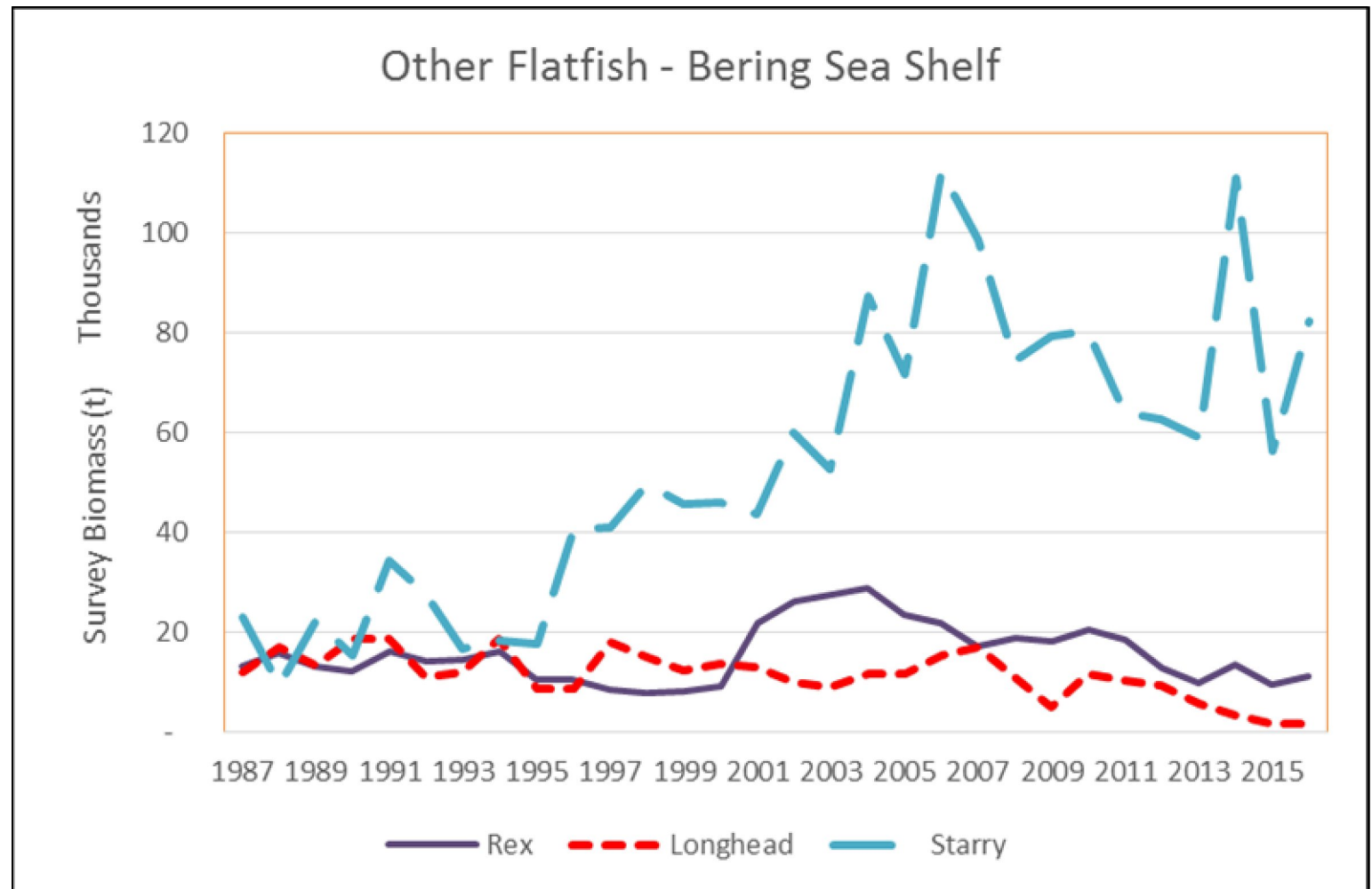


BSAI Other Flatfish



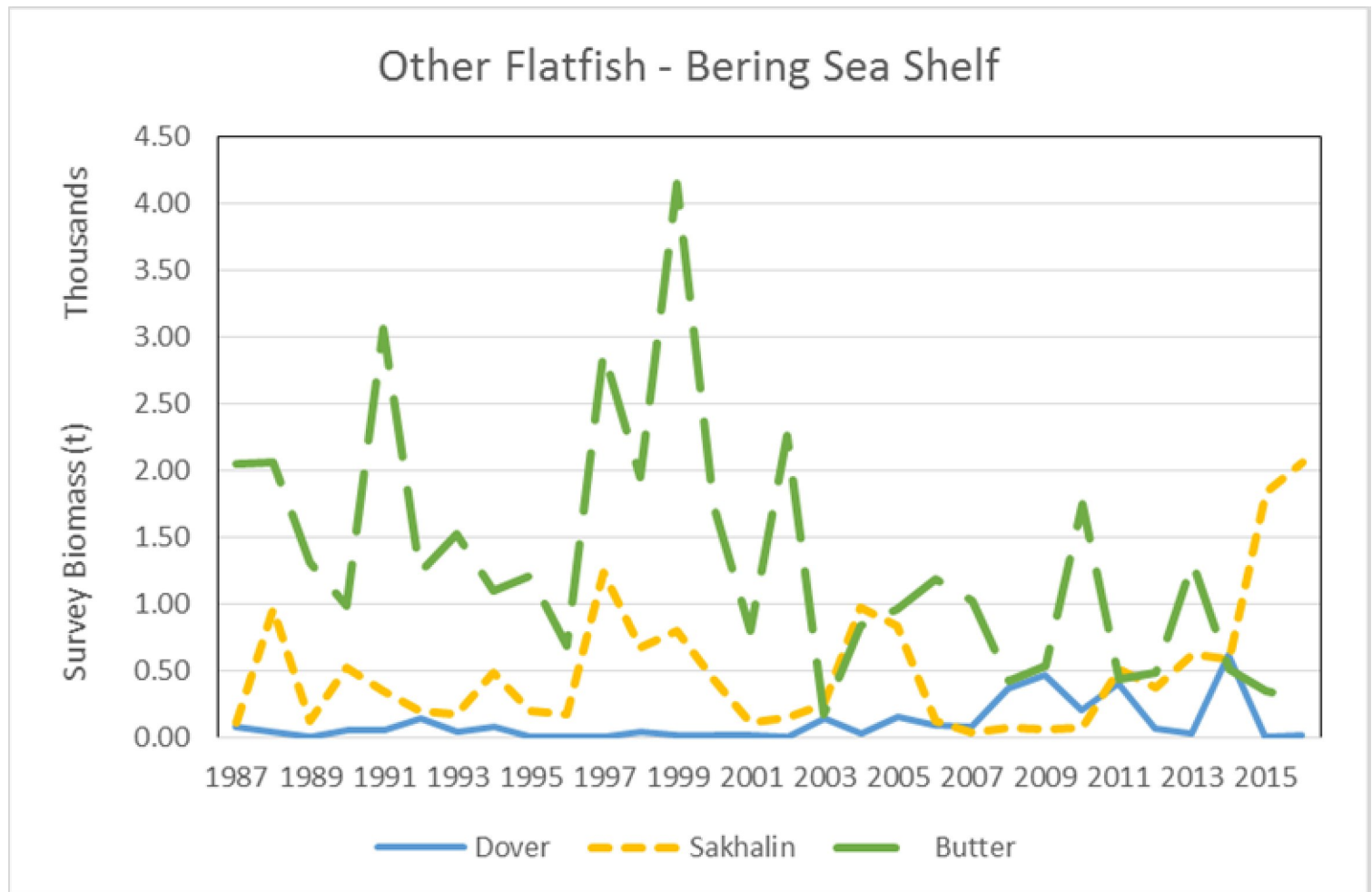


Biomass Trends – Shelf Survey





Biomass Trends – Shelf Survey





Harvest Recommendations

- RE model run separately for biomass TS in shelf, AI, and slope surveys then added for BSAI total. Separate M and B estimates (model runs) for Rex sole, Dover sole, and all other species.

Species	F_{abc}	F_{ofl}	B (RE)	ABC	OFL
Rex sole	0.128	0.17	35,005	4,463	5,951
Dover sole	0.064	0.085	1,935	123	164
All others	0.113	0.15	76,510	8,607	11,476
Total Other Flatfish			113,450	16,395	21,860

Science, Service, Stewardship



BSAI Other Rockfish 2016

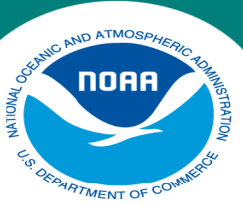
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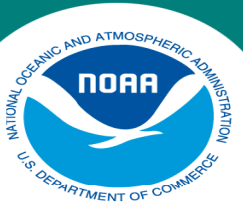
ORF Catch and Retention - AI

Area	Year	Retained (t)	Discarded (t)	Total catch (t)	Percent Discarded
Aleutian	2004	162	120	282	42.55%
Islands	2005	185	82	267	30.71%
	2006	228	121	349	34.67%
	2007	208	197	405	48.64%
	2008	266	70	336	20.83%
	2009	253	55	308	17.86%
	2010	379	63	442	14.25%
	2011	472	126	598	21.07%
	2012	574	80	654	12.23%
	2013	461	137	598	22.91%
	2014	461	57	518	11.00%
	2015	192	54	245	21.85%
2016	149	14	163	8.30%	



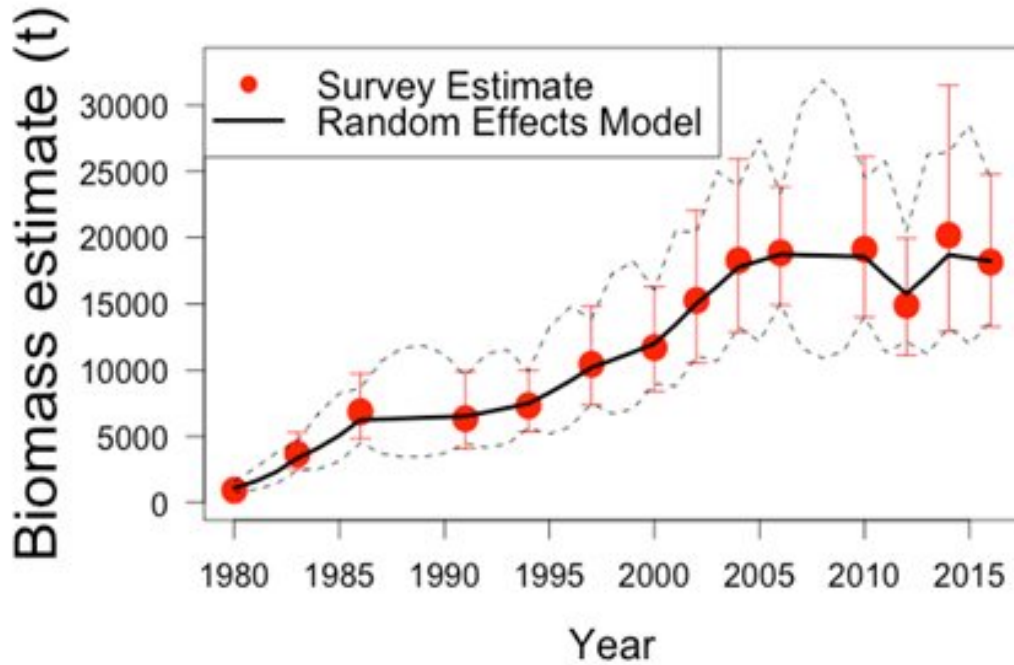
ORF Catch and Retention - EBS

Area	Year	Retained (t)	Discarded (t)	Total catch (t)	Percent Discarded
Eastern	2004	221	65	286	22.73%
Bering	2005	137	19	156	12.18%
Sea	2006	119	23	142	16.20%
	2007	143	72	215	33.49%
	2008	140	63	203	31.03%
	2009	169	21	190	11.05%
	2010	199	37	236	15.68%
	2011	267	39	306	12.75%
	2012	146	28	174	16.09%
	2013	143	24	167	14.37%
	2014	237	41	278	14.75%
	2015	99	62	160	38.40%
	2016	138	72	210	34.18%

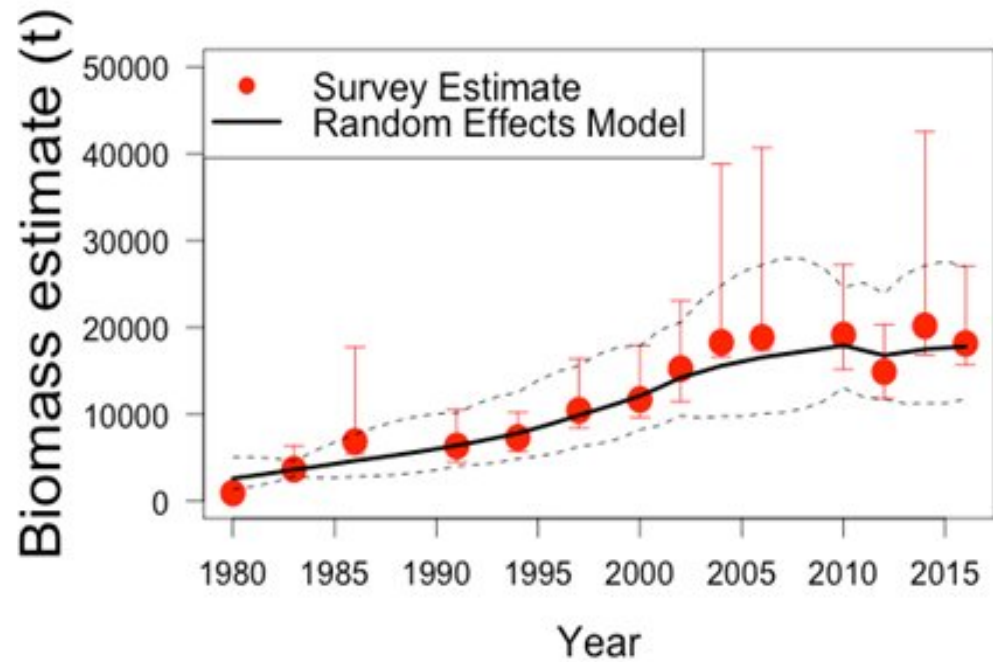


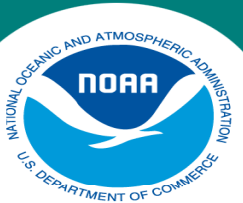
ORF Biomass Trends - AI

Aleutian Is. SST



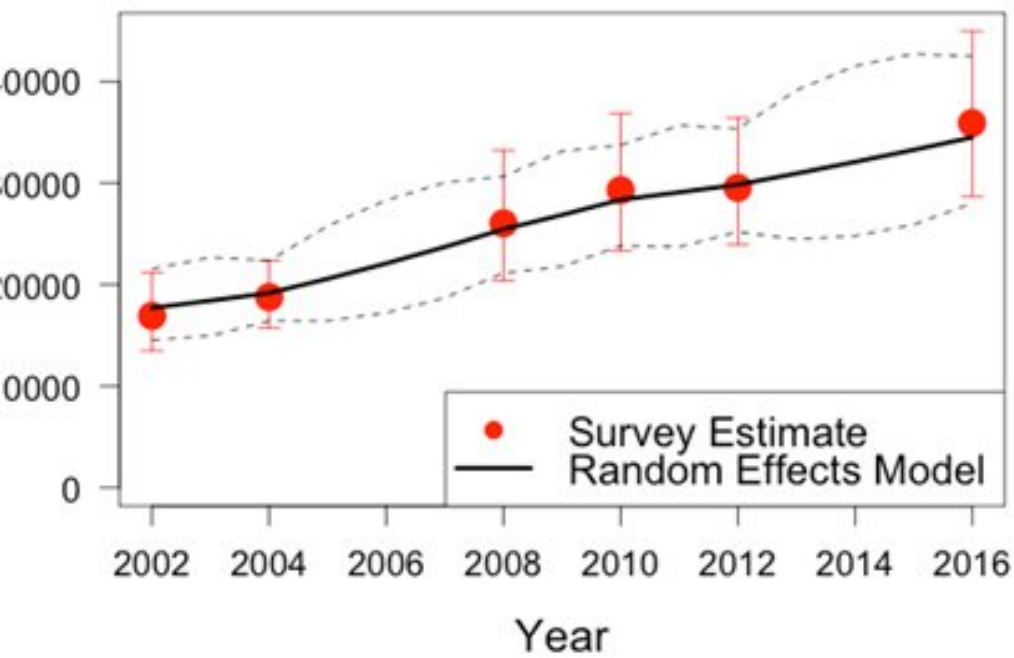
Aleutian Is. non-SST



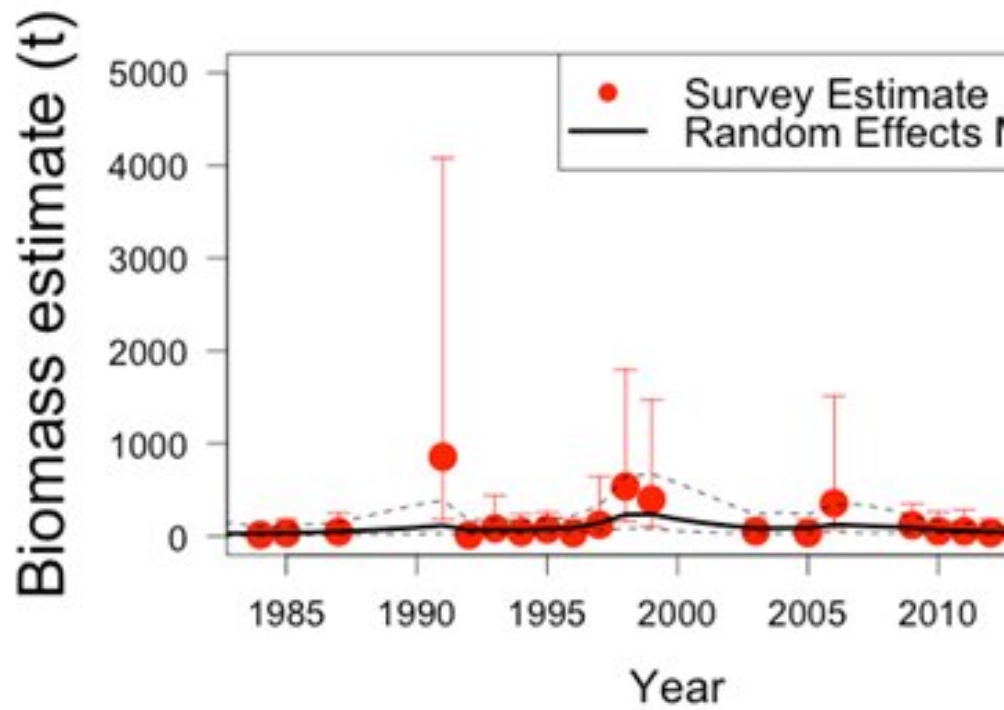


ORF Biomass Trends - EBS

Bering Sea slope SST

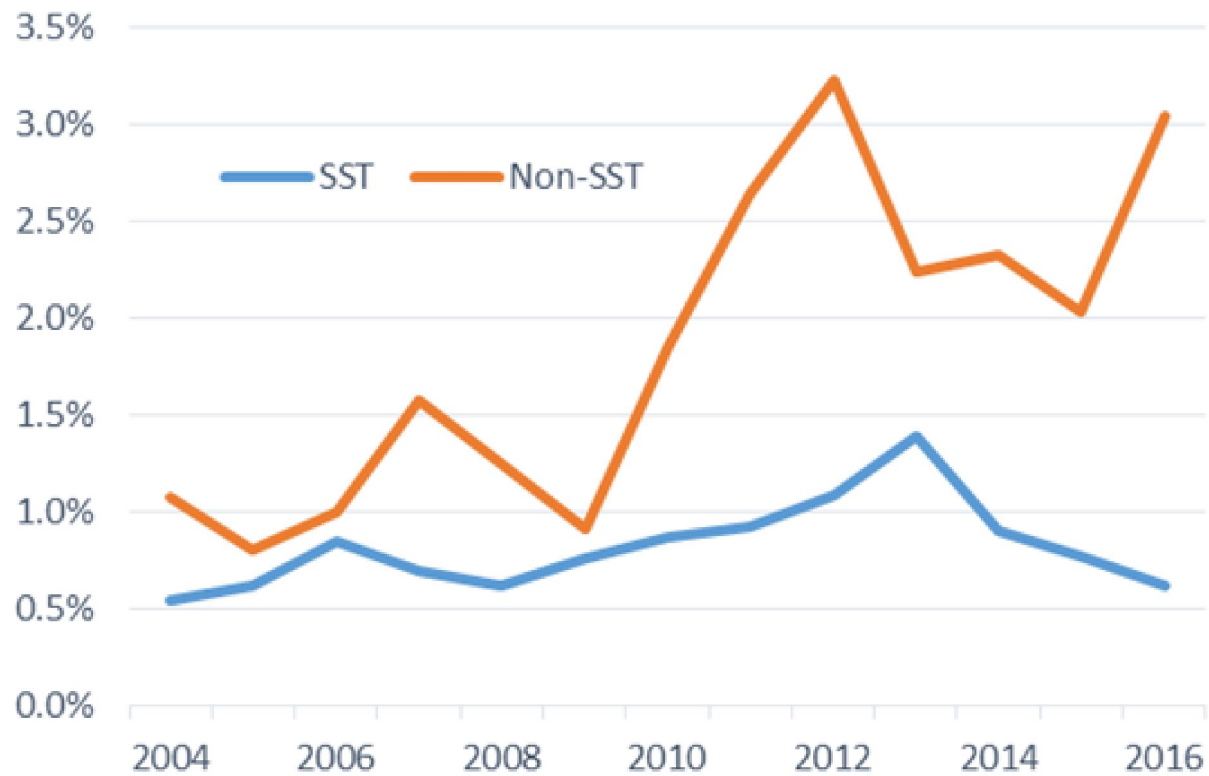


Bering Sea shelf other rockfish





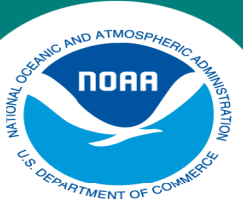
AI Other Rockfish Exploitation Rates





BSAI Other Rockfish

- Includes all rockfish not in separate assessments: primarily dusky rockfish in the AI and shortspine thornyhead (SST) on the EBS shelf, slope, & AI
- M's, RE model biomass, and ABC/OFL calculated separately for SST and all other species, then added for category total.
- Apportionment between EBS and AI based on survey biomass.
- 2016 catch over regional ABC in AI, but below it in EBS; overall catch 913 t, well below BSAI ABC.
- 2016 Survey biomass down from 2014 high in AI, steady on shelf. EBS slope estimate highest ever seen at 35,978 t; almost all SST.



BSAI Other Rockfish

2016:	SST	NonSST	TotalORF
M	0.03	0.09	
Biomass	52,761	17,883	70,603
LCI	(41,677)	(11,781)	(53,457)
UCI	(66,898)	(27,175)	(94,073)
Fofl	0.03	0.09	-
maxFabc	0.02	0.07	-
Fabc	0.02	0.07	-
OFL	1,583	1,609	3,192
max ABC	1,187	1,207	2,394
ABC	1,187	1,207	2,394
AI ABC	398	1,197	1,595
EBS ABC	789	10	799