



NOAA
FISHERIES

BSAI Other flatfish

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Model overview

- Tier 5 complex of 15 flatfish species, assessed every 4 years
- Non-target species
- Catches dominated by starry flounder and rex sole (83.9% in 2023)
- Catches less than ABC (17.5% in 2023)
- REMA model for 9 time series: areas by “group”:
(AI, shelf, slope) x (rex, Dover, ‘other’ other)
- Rex & Dover have different M so split off for calculating management reference points

Species in complex

Common Name	Scientific Name
Arctic flounder	<i>Liopsetta glacialis</i>
butter sole	<i>Isopsetta isolepis</i>
curlfin sole	<i>Pleuronectes decurrens</i>
deepsea sole	<i>Embassichthys bathybius</i>
Dover sole	<i>Microstomus pacificus</i>
English sole	<i>Parophrys vetulus</i>
longhead dab	<i>Limanda proboscidea</i>
Pacific sanddab	<i>Citharichthys sordidus</i>
petrale sole	<i>Eopsetta jordani</i>
rex sole	<i>Glyptocephalus zachirus</i>
roughscale sole	<i>Clidodoerma asperrimum</i>
sand sole	<i>Psettichthys melanostictus</i>
slender sole	<i>Lyopsetta exilis</i>
starry flounder	<i>Platichthys stellatus</i>
Sakhalin sole	<i>Limanda sakhalinensis</i>

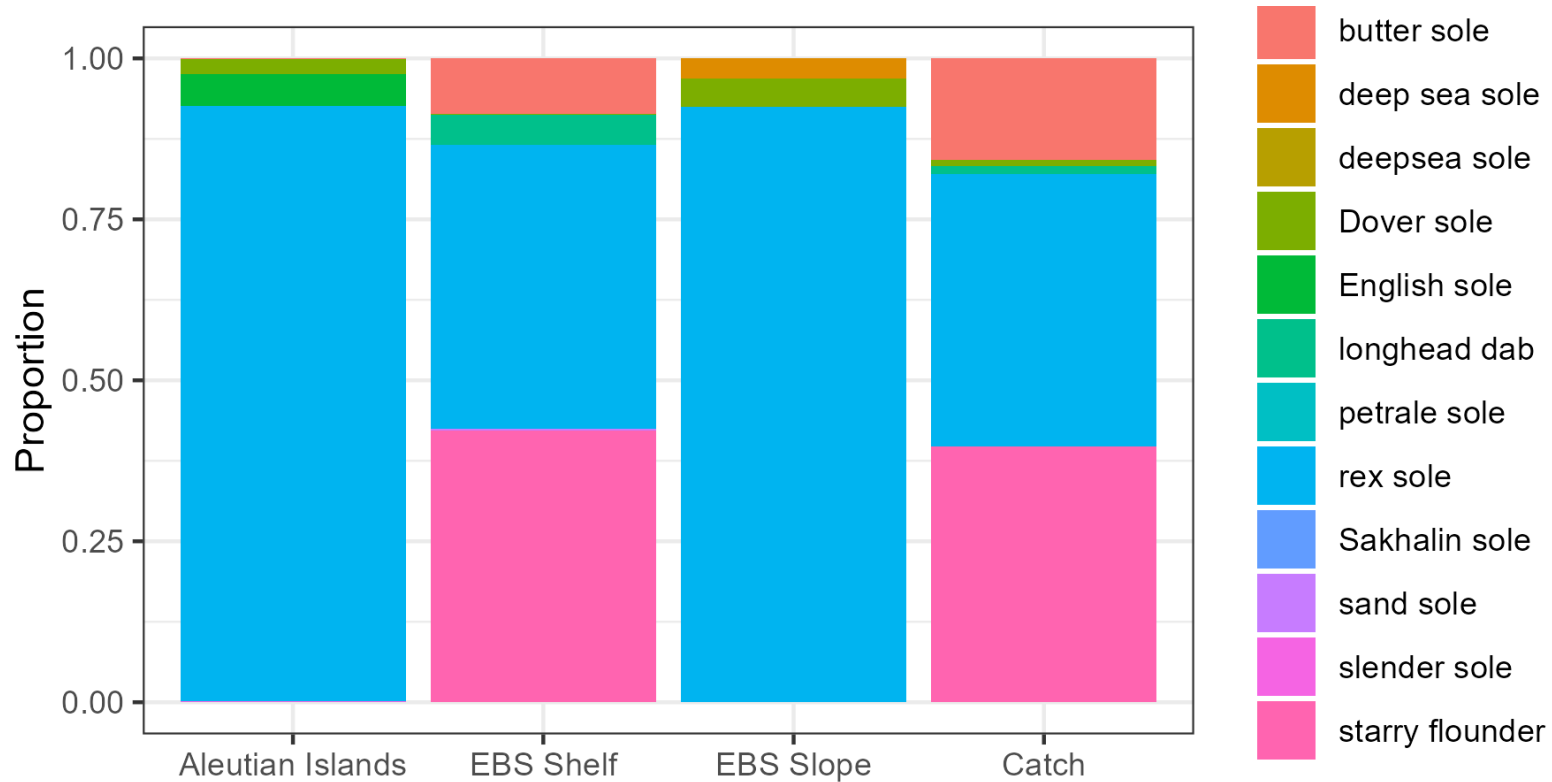
Results overview

2025 ABC of 19,562 t

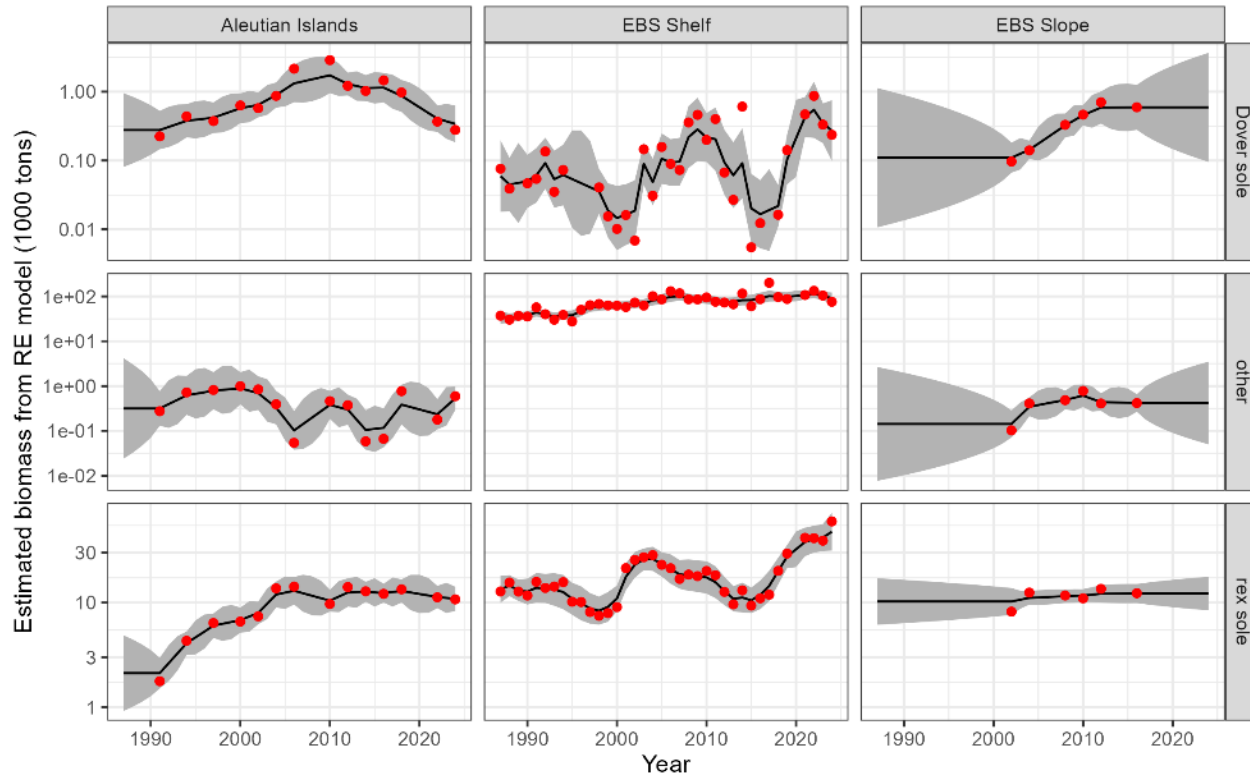
A 13.8% increase from 2024

Quantity	As estimated or specified last year for:		As estimated or recommended this year for:	
	2024	2025	2025	2026
M (natural mortality rate) for rex	0.17	0.17	0.17	0.17
M (natural mortality rate) for Dover	0.085	0.085	0.085	0.085
M (natural mortality rate) for all other species	0.15	0.15	0.15	0.15
Tier	5	5	5	5
RE Model Combined Biomass (t)	141,325	141,325	164,955	164,955
F_{OFL} ($F=M$) for rex sole	0.17	0.17	0.17	0.17
F_{OFL} ($F=M$) for Dover sole	0.085	0.085	0.085	0.085
F_{OFL} ($F=M$) for all other species	0.15	0.15	0.15	0.15
$maxF_{ABC}$ for rex sole	0.128	0.128	0.128	0.128
$maxF_{ABC}$ for Dover sole	0.064	0.064	0.064	0.064
$maxF_{ABC}$ for all other species	0.113	0.113	0.113	0.113
F_{ABC} for rex sole	0.128	0.13	0.128	0.13
F_{ABC} for Dover sole	0.064	0.064	0.064	0.064
F_{ABC} for all other species	0.113	0.113	0.113	0.113
OFL (t)	21,824	21,824	26,083	26,083
maxABC (t)	16,368	16,368	19,562	19,562
ABC (t)	16,368	16,368	19,562	19,562
Status	As determined last year for:		As determined this year for:	
	2022	2023	2023	2024
Overfishing	no	n/a	no	n/a

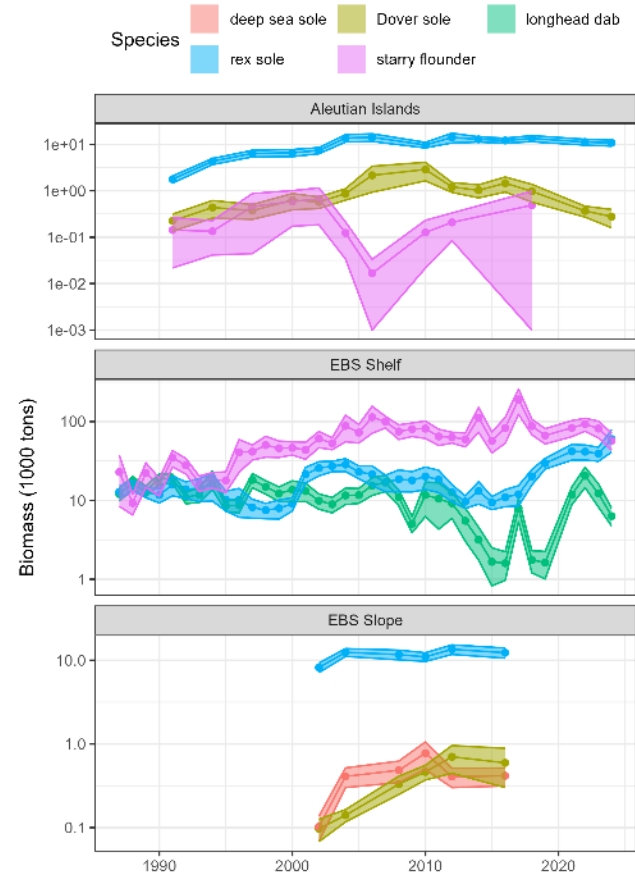
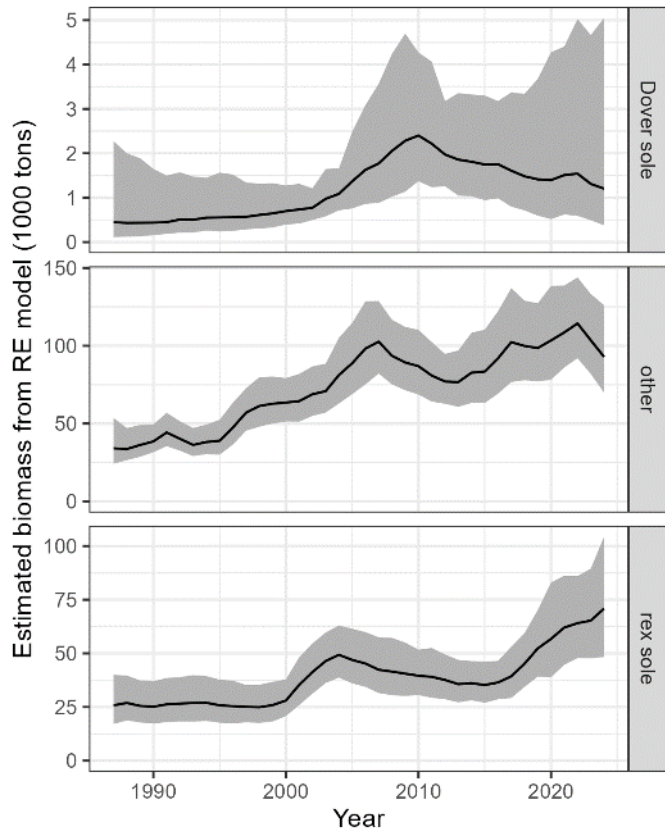
Catch proportions by area



Biomass estimates by area & group



Biomass estimates by area & group



Risk table

- Model fits well and no species of concerns
- No apparent ecosystem concerns
- No ESP available, exploitation rates low (~1%) and catch << ABC
- **No reduction from max ABC recommended**

Summary and ABC recommendation

<i>Assessment-related considerations</i>	<i>Population dynamics considerations</i>	<i>Environmental/ ecosystem considerations</i>	<i>Fishery Performance considerations related to the health of the stock</i>
Level 1: normal	Level 1: normal	Level 1: normal	Level 1: normal

Summary and questions?

- Questions?

Species	F_{ABC}	F_{OFL}	Biomass (t)	ABC	OFL
Rex sole	0.13	0.17	70,878	9,037	12,049
Dover sole	0.06	0.09	1,204	77	102
All others	0.11	0.15	92,872	10,448	13,931
Total other flatfish			164,955	19,562	26,083