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Gulf of Alaska Dusky Rockfish

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Dusky rockfish

Alternative data explorations:

VAST explorations - Model 15.5a(2020):

A = poisson-delta, gamma, 500 knots

B = poisson-delta, gamma, 750 knots

C = delta, lognormal, 1000 knots

D = delta, lognormal, 750 knots

E = poisson-delta, lognormal, 750 knots

F = delta, gamma, 750 knots

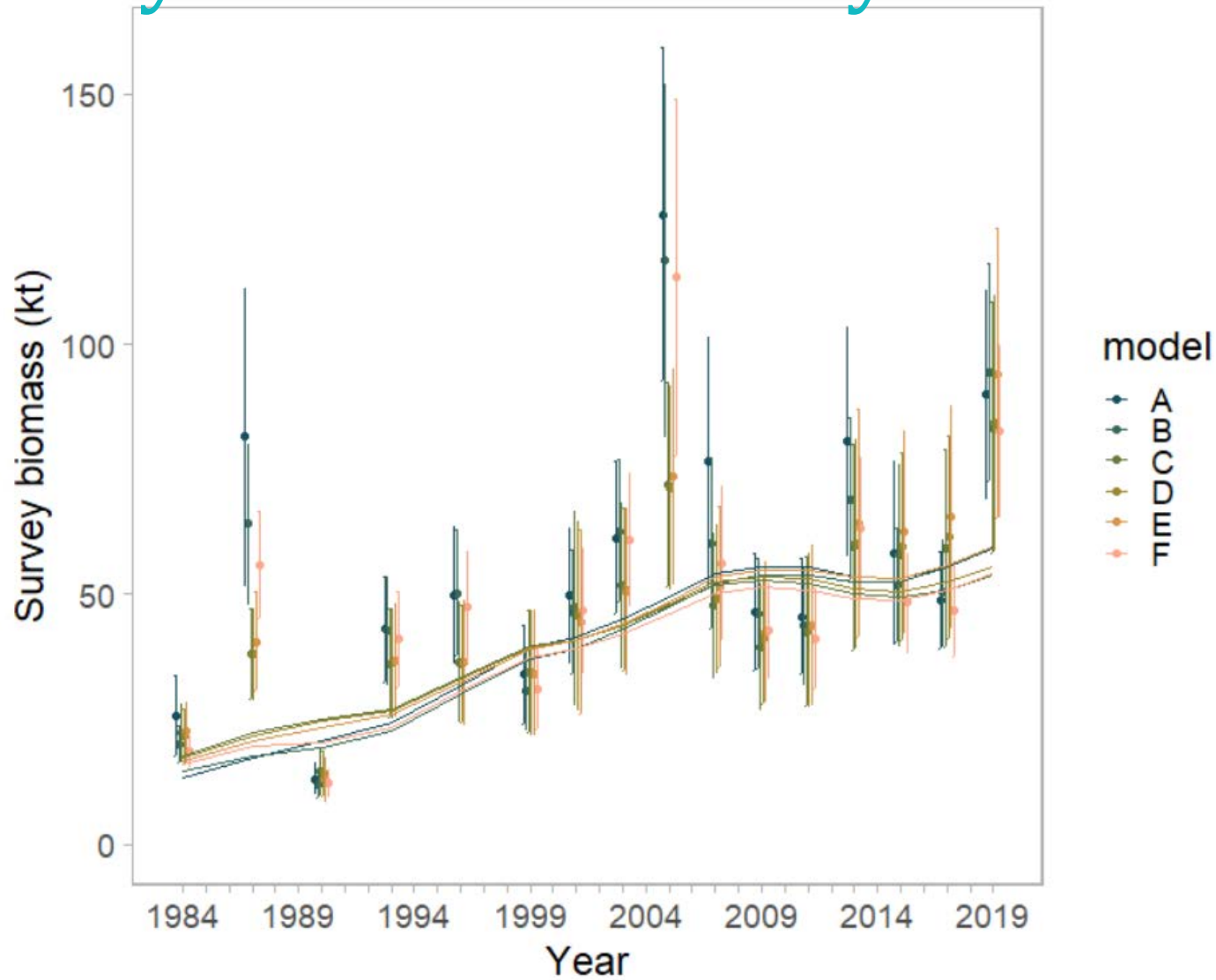
Alternative model explorations:

- Length plus group
- Age plus group
- Length and age plus group



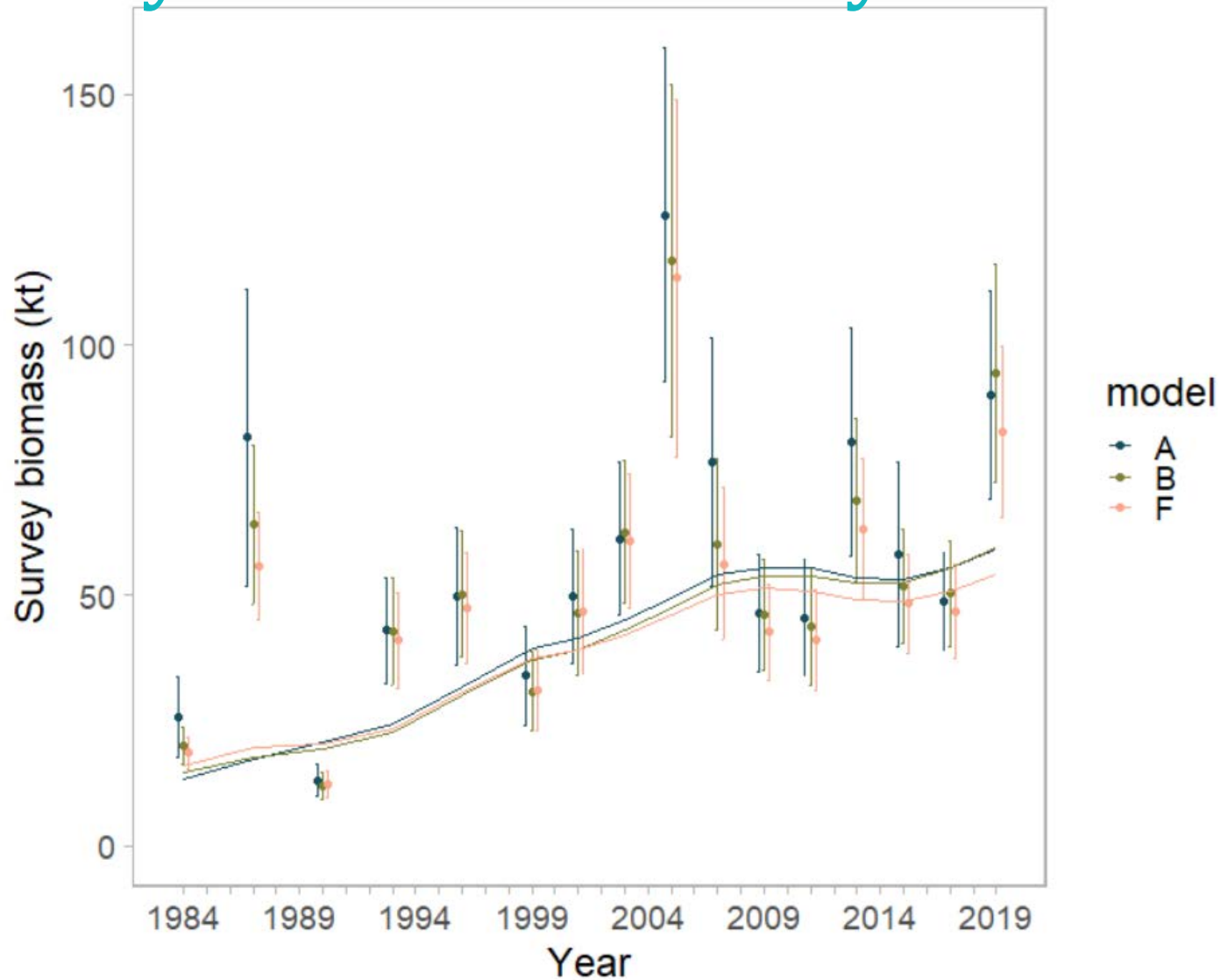
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Dusky rockfish – survey biomass

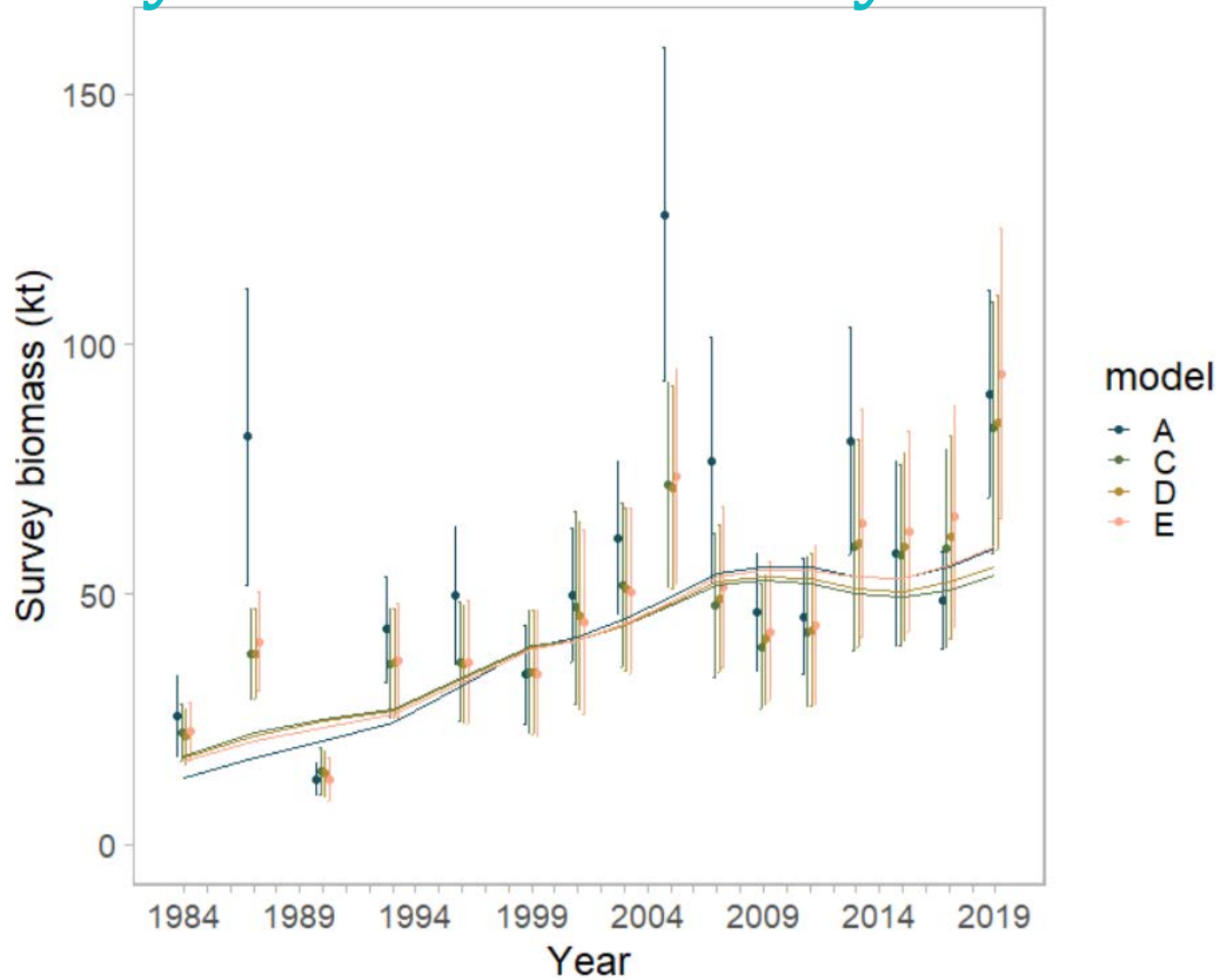


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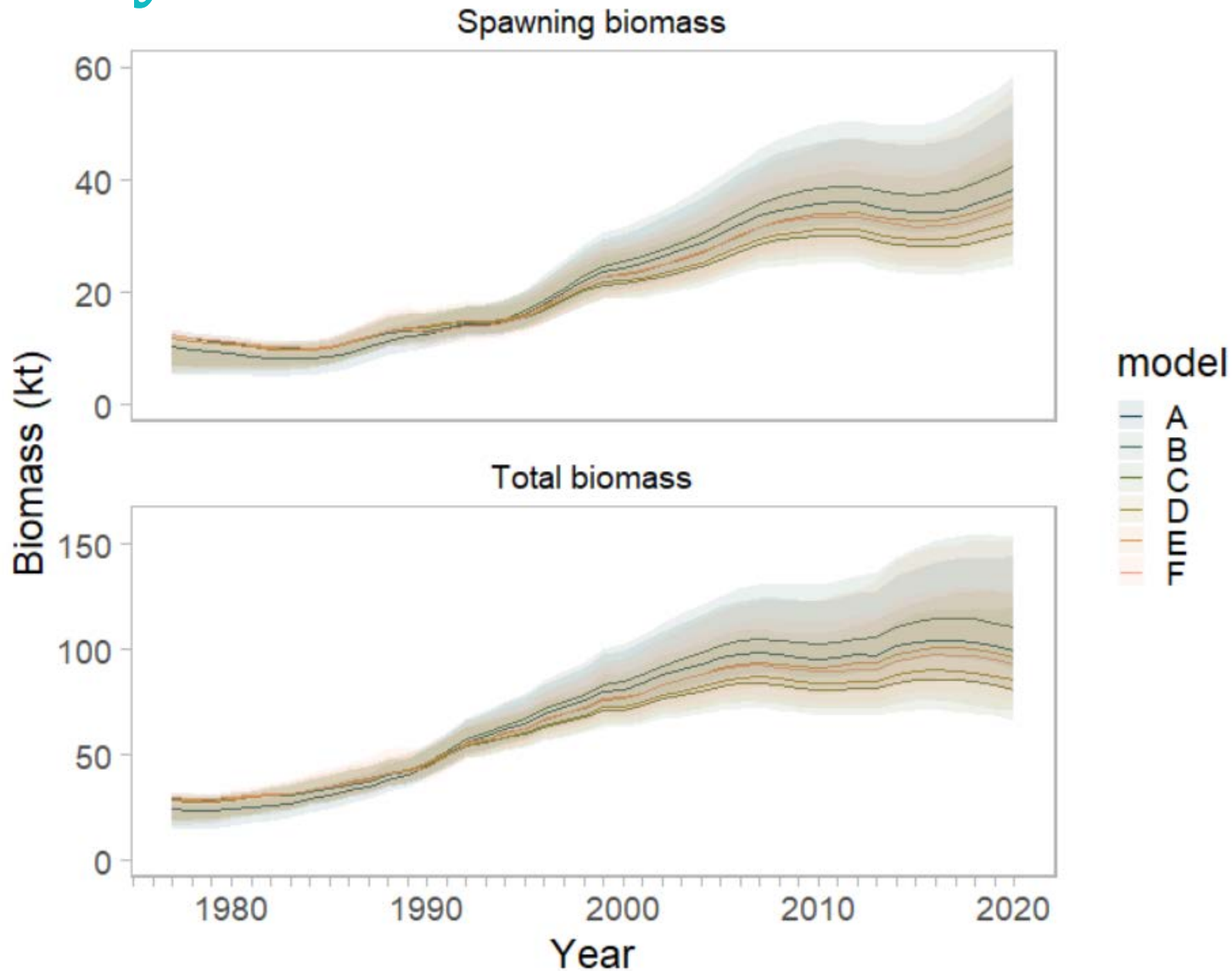
Dusky rockfish – survey biomass



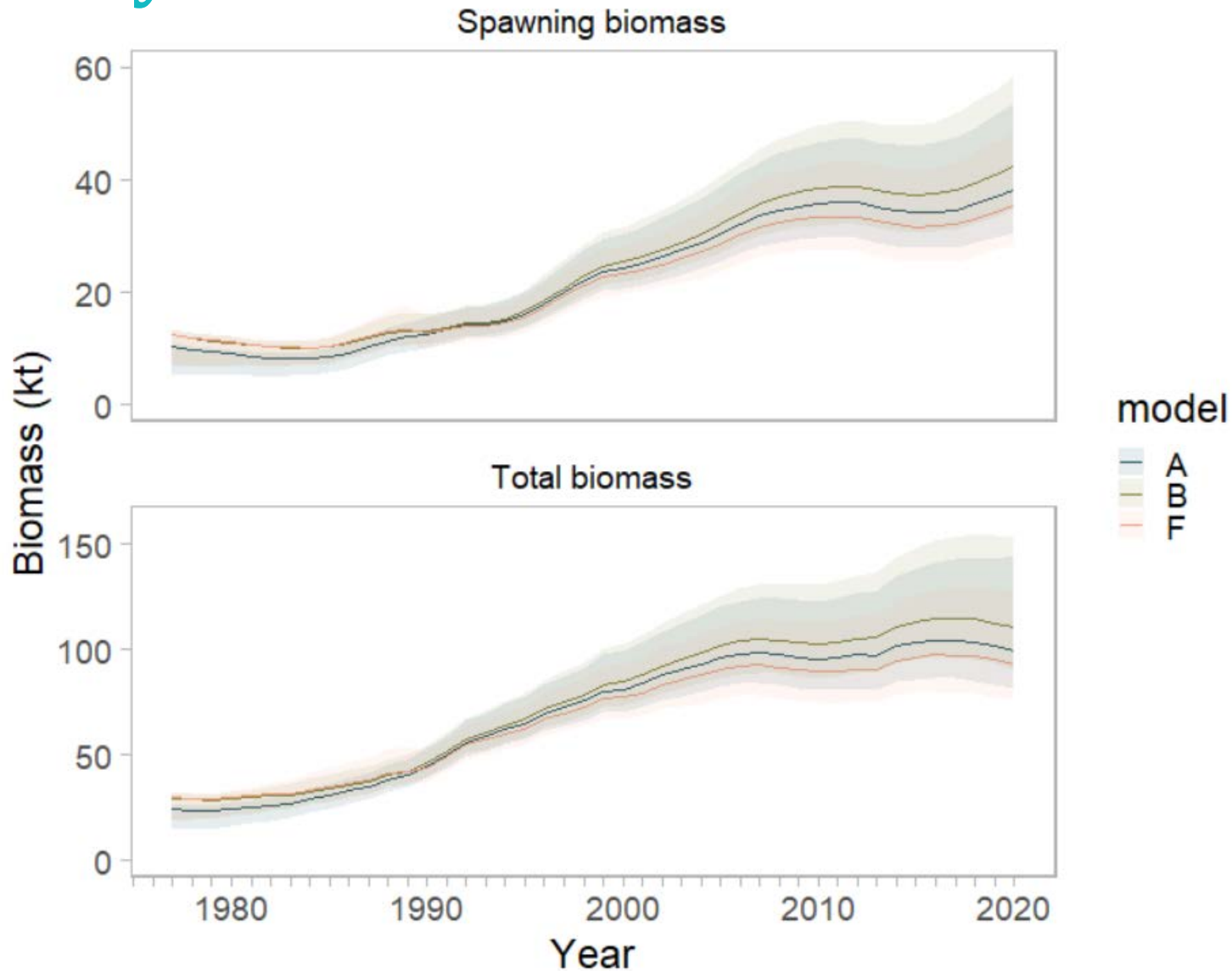
Dusky rockfish – survey biomass



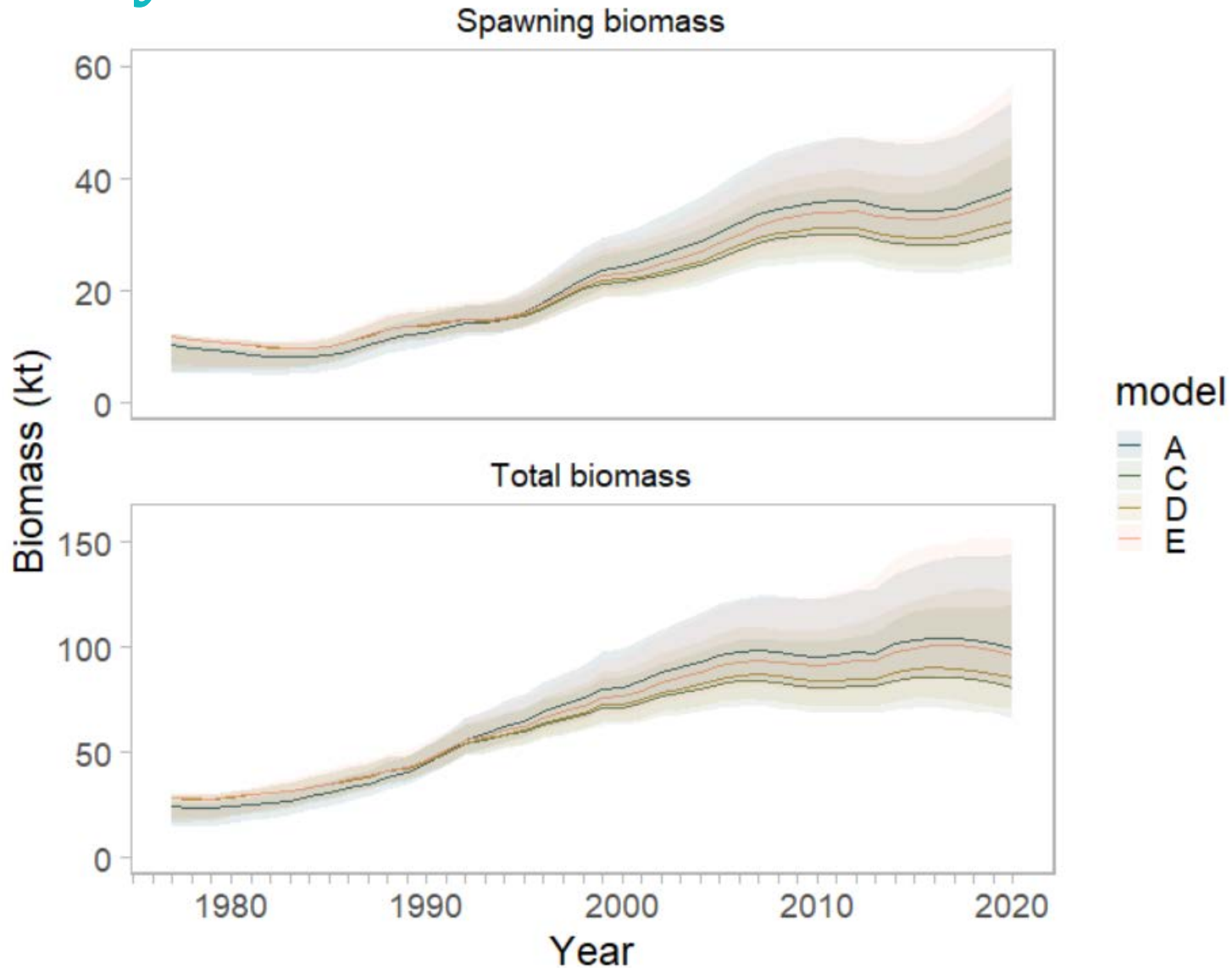
Dusky rockfish – biomass



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Dusky rockfish

Alternative data explorations:

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Recommendation:

Likely use VAST option E

- maintains the use of the delta model (reduced bias)
- same # of knots as default GAP settings
- residual “diagnostics” (not shown)
- precautionary relative to default GAP settings



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Alternative model explorations:

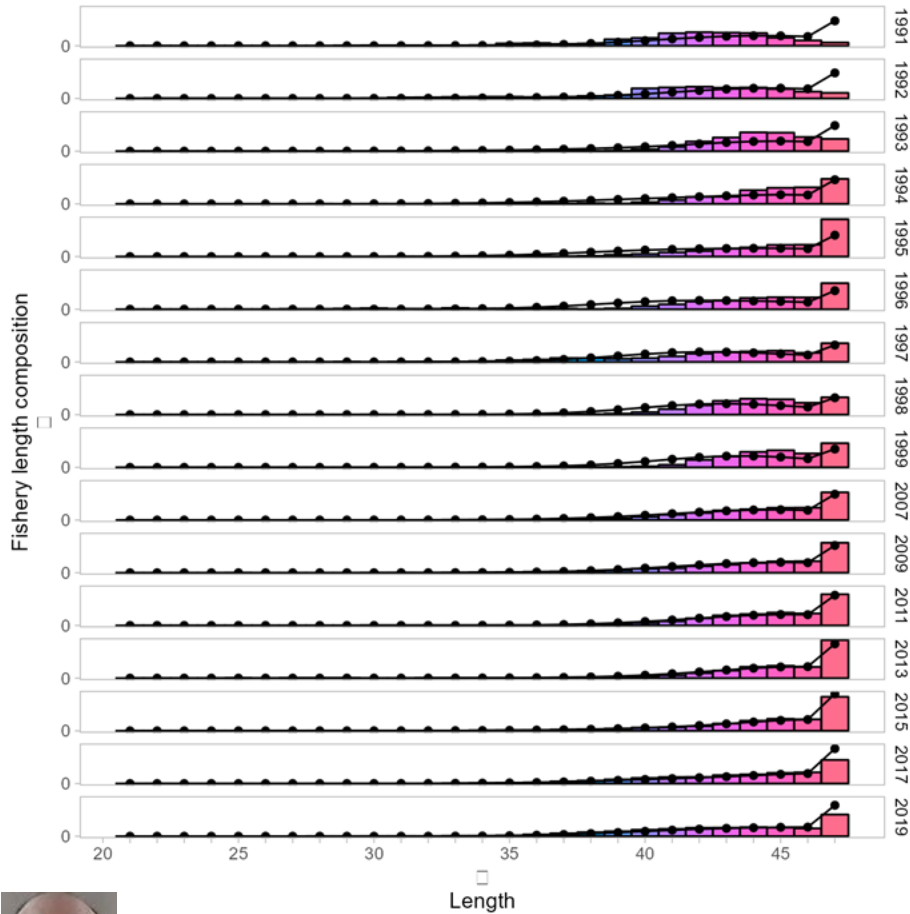
- Length plus group
- Age plus group
- Length and age plus group



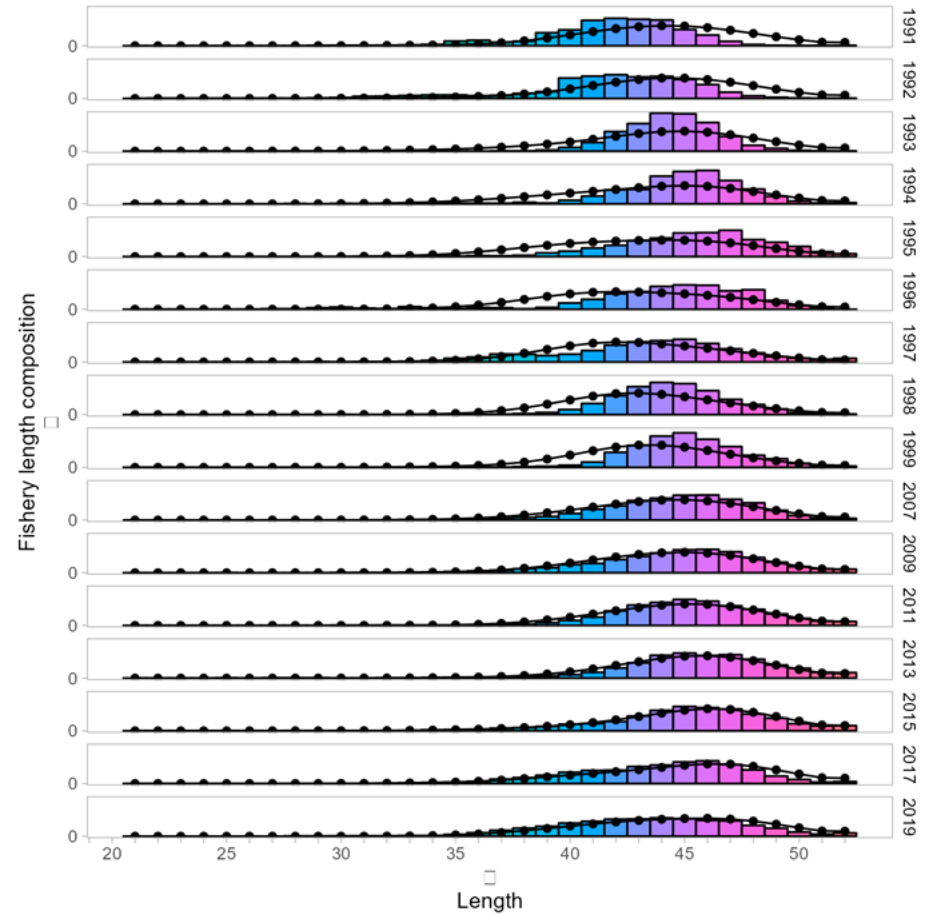
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Dusky rockfish – length plus group

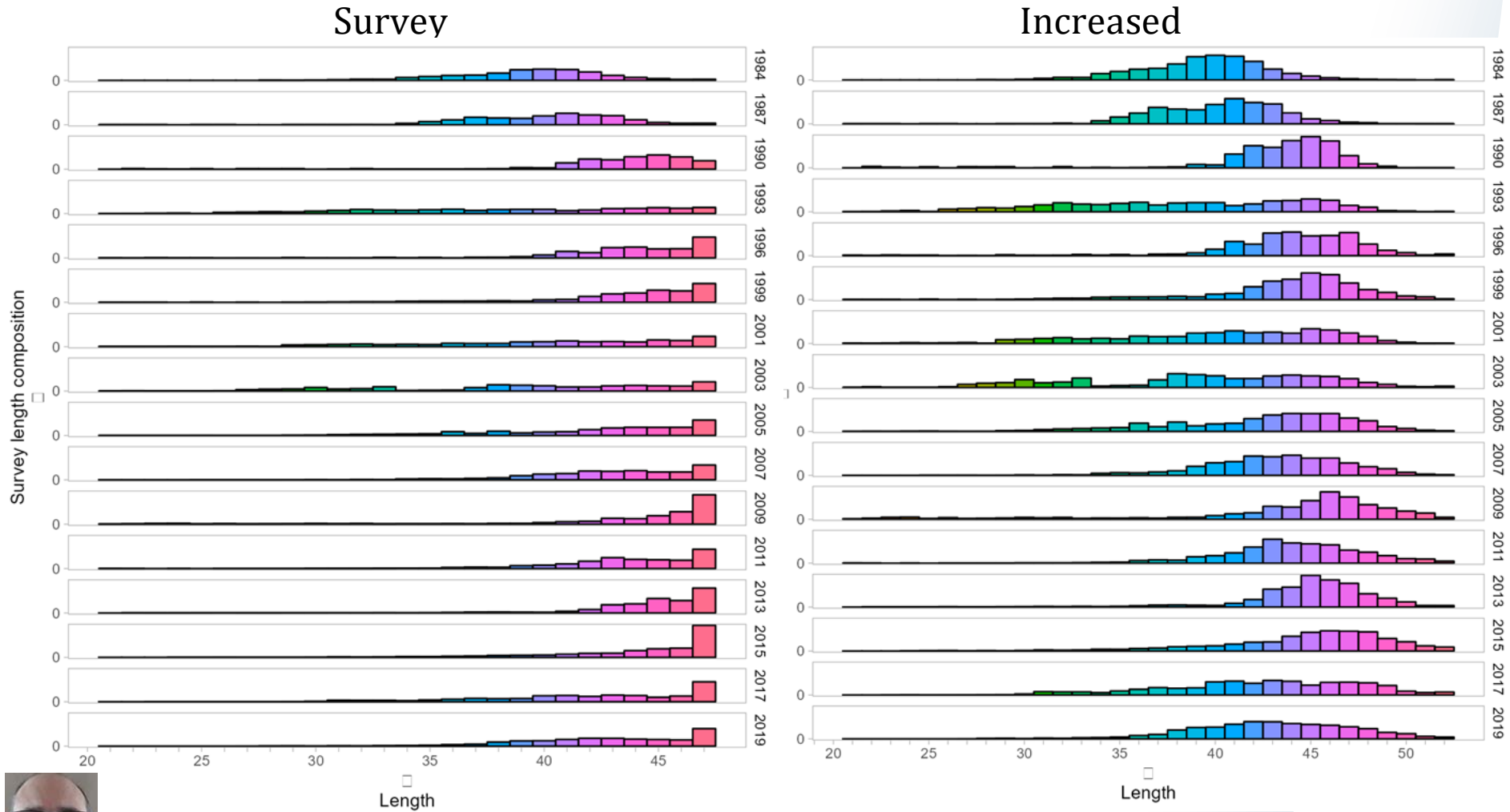
Fishery



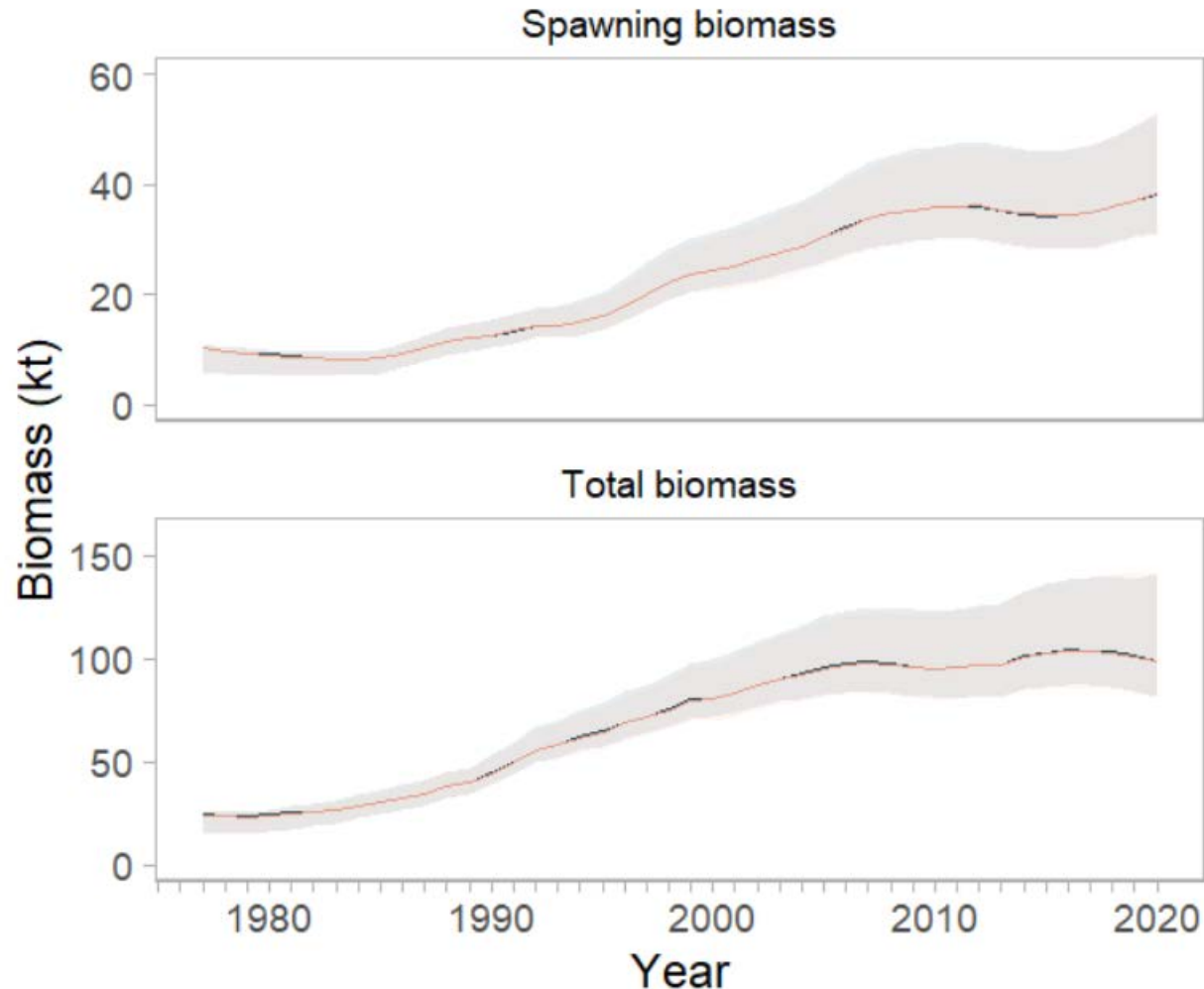
Increased



Dusky rockfish – length plus group



Dusky rockfish – length plus group



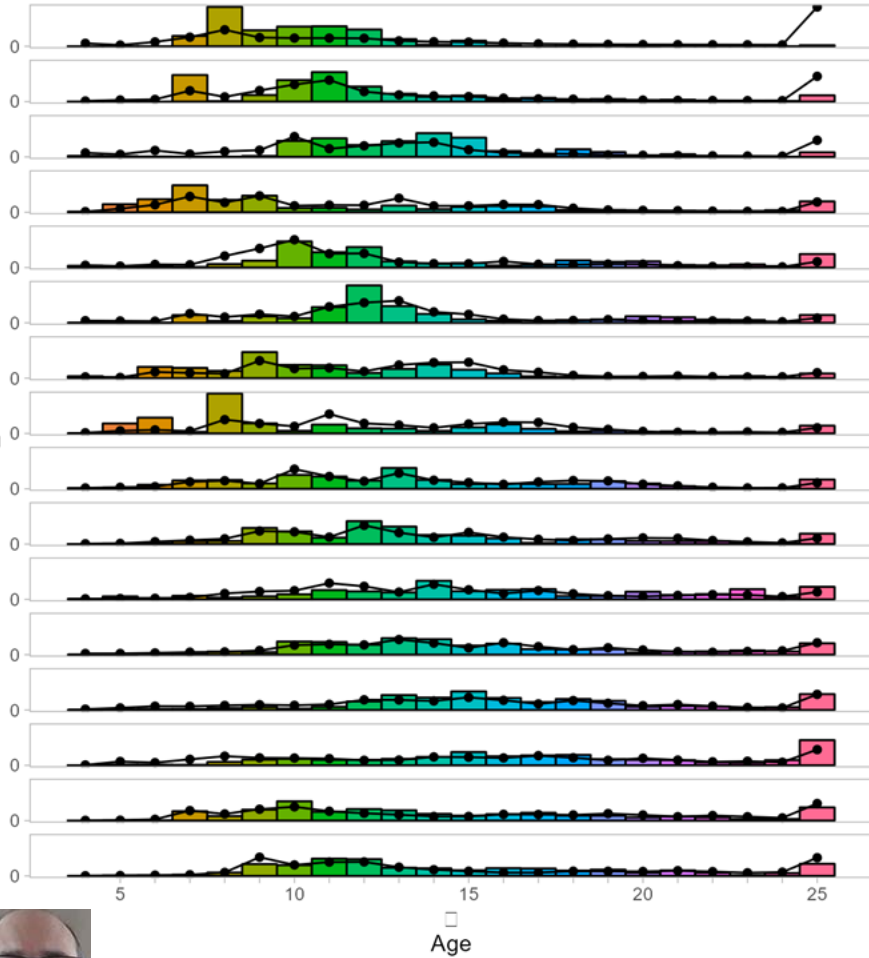
model — base — plus_length



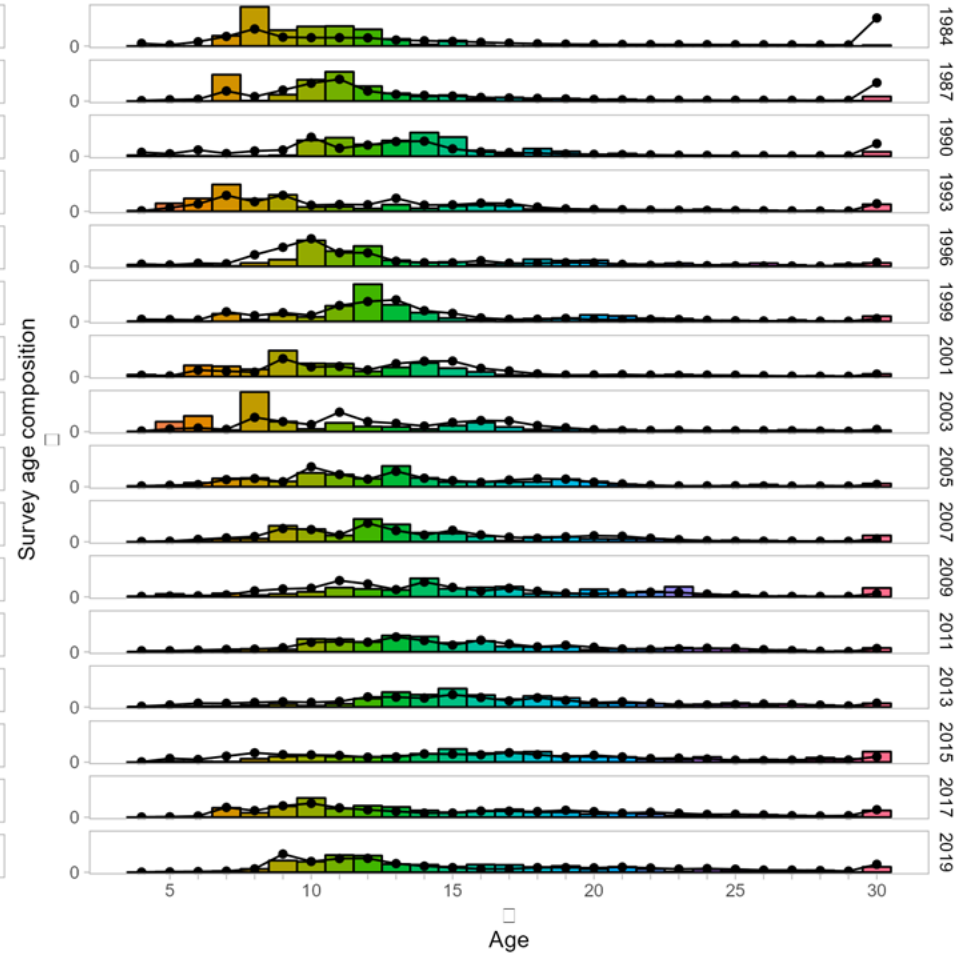
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Dusky rockfish – age plus group

Survey

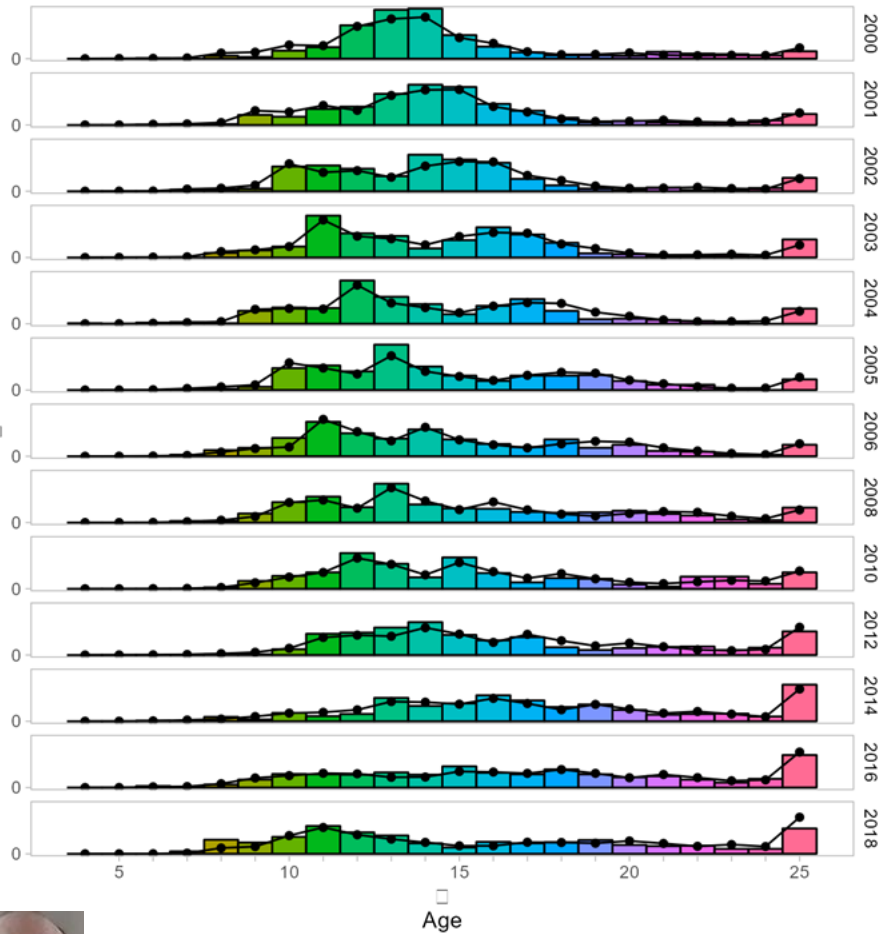


Increased

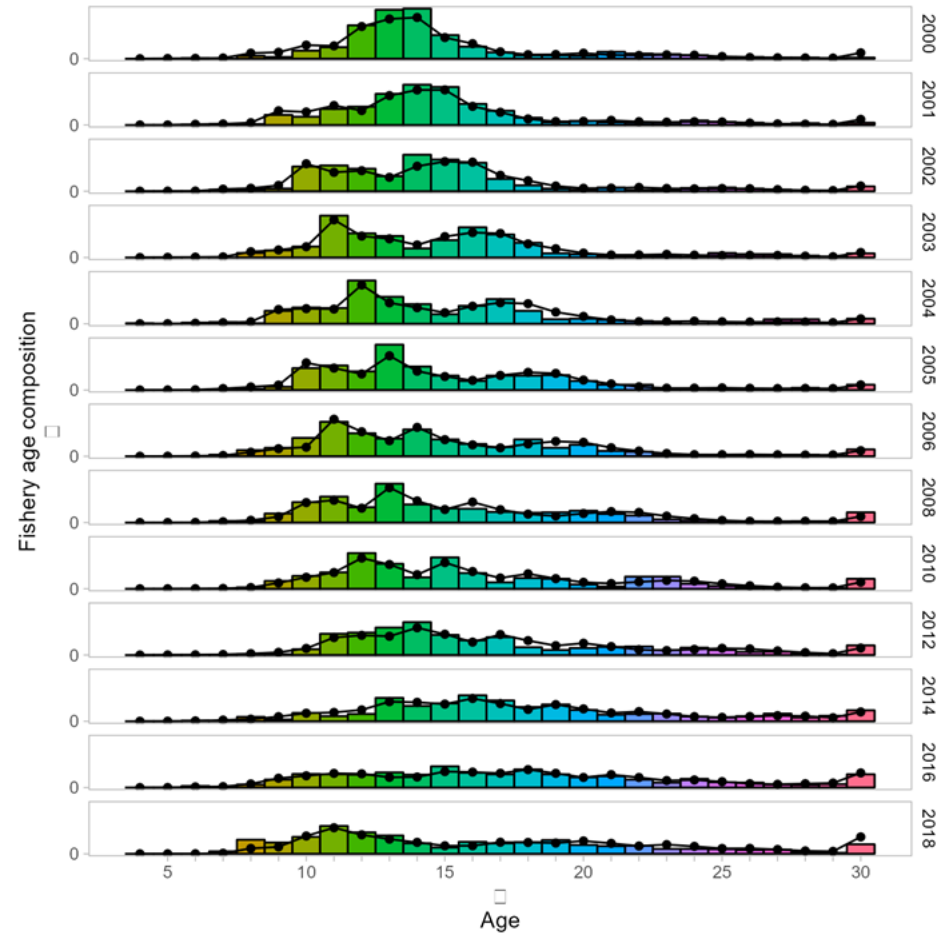


Dusky rockfish – age plus group

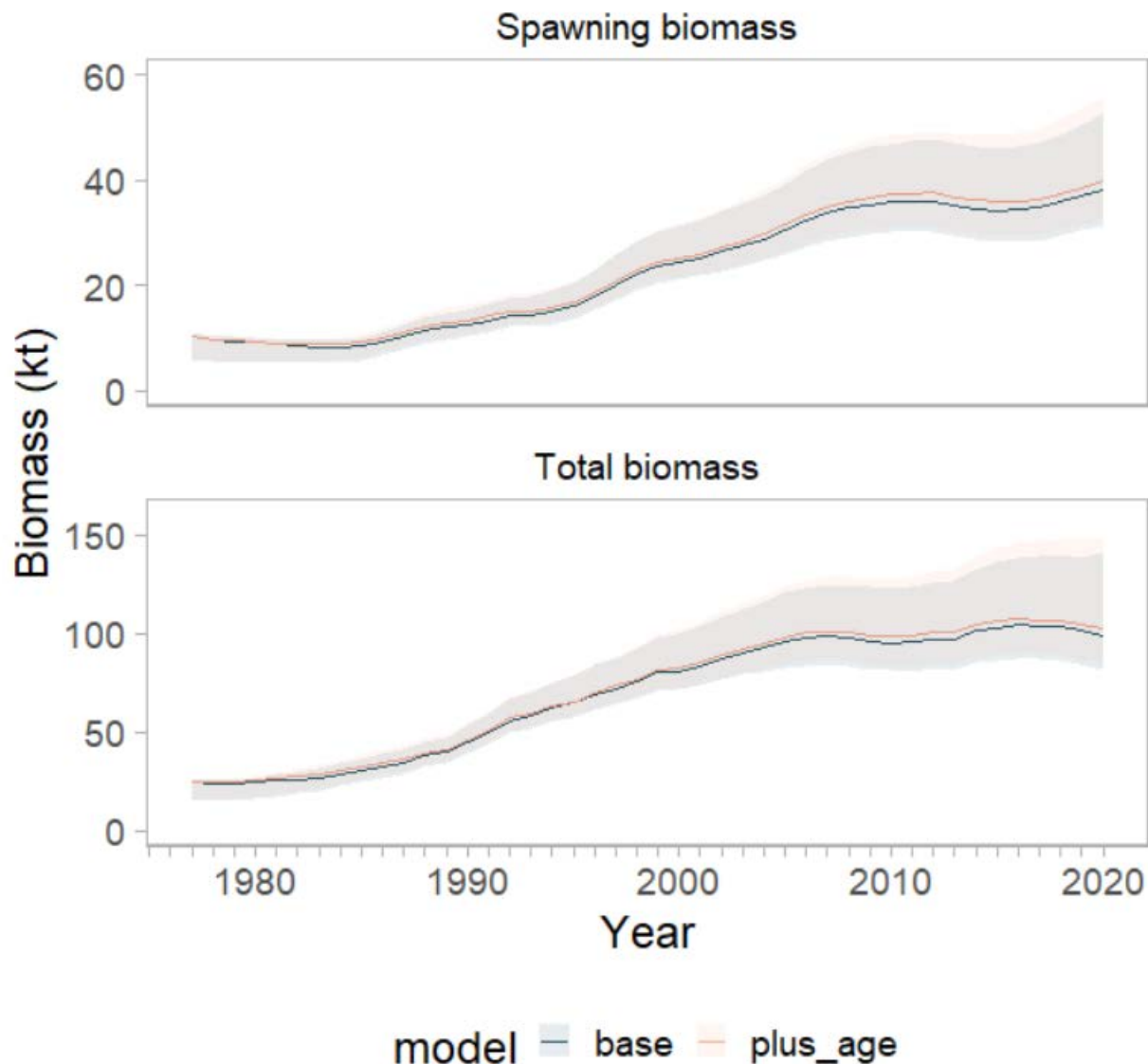
Fishery



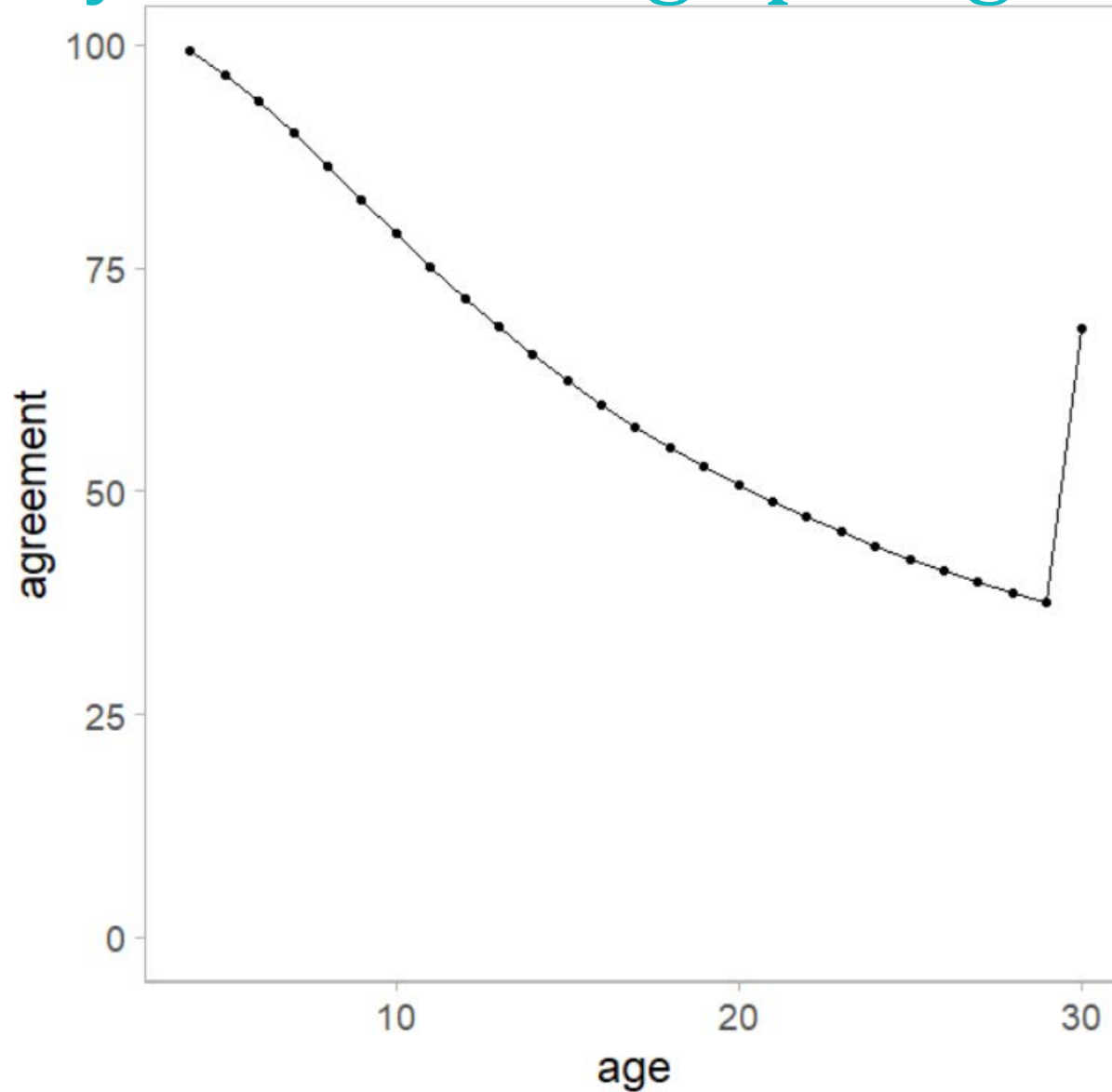
Increased



Dusky rockfish – age plus group



Dusky rockfish – age plus group



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Dusky rockfish – plus groups

	Base	Length	Age	Age/Length
Parameters	124	124	130	130
Likelihoods				
Data	332.8	340.1	350.7	356.6
Survey - age	124.8	124.4	131.9	132.1
Fishery - age	32.8	32.8	38.9	38.7
Fishery - length	49.2	55.9	52.2	57.6



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Questions?

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