

North Pacific Blueshark Stock Assessment

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Blue Shark Life History

Maturity: 4 – 6 yr

Litter size:
35 on average
135 max

Breeding frequency: 1 – 2 yr ?

Natural Mortality: 0.22 yr^{-1}

Growth:

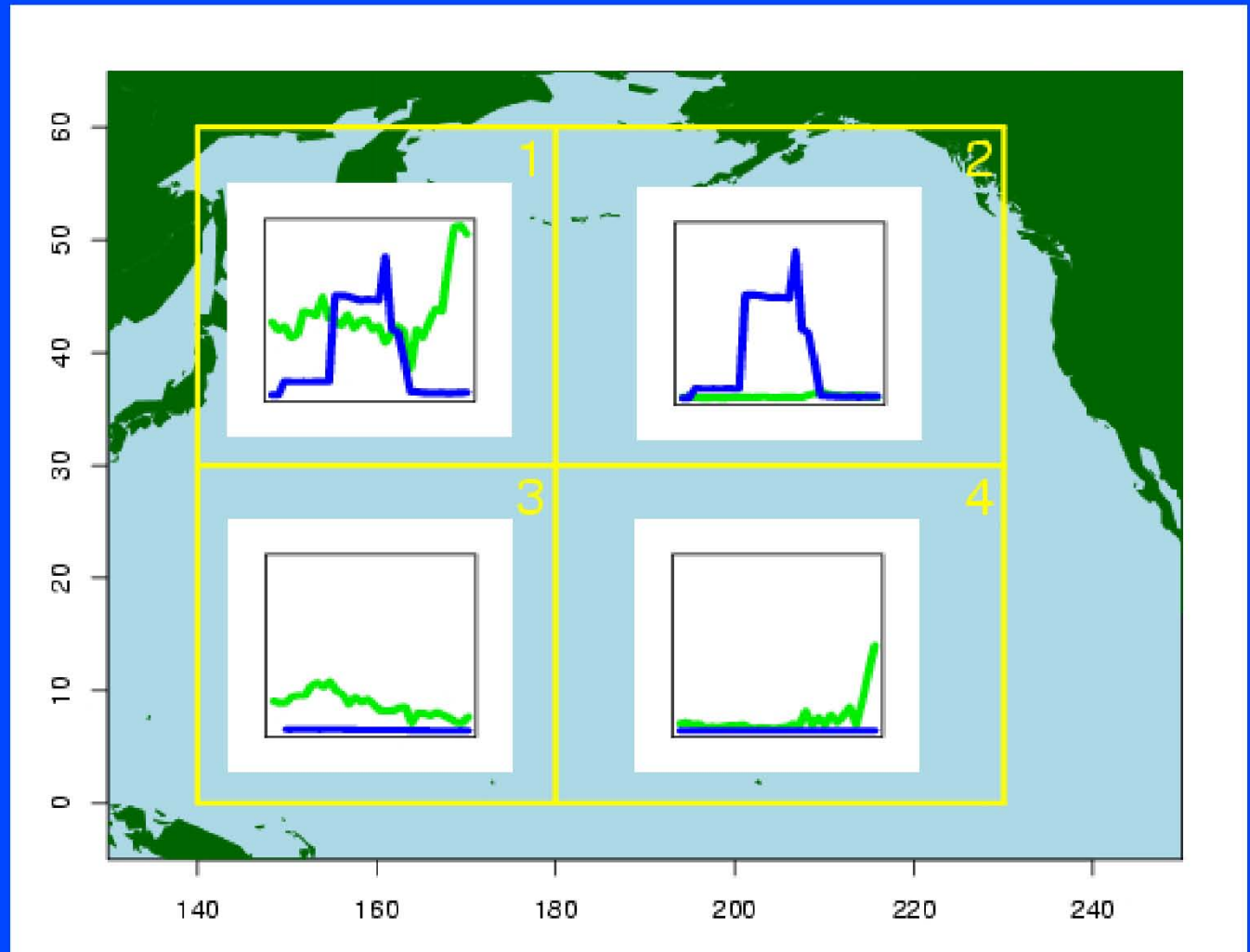
K in N. Pacific:

males $.09 - .18 \text{ yr}^{-1}$
females $.12 - .25 \text{ yr}^{-1}$

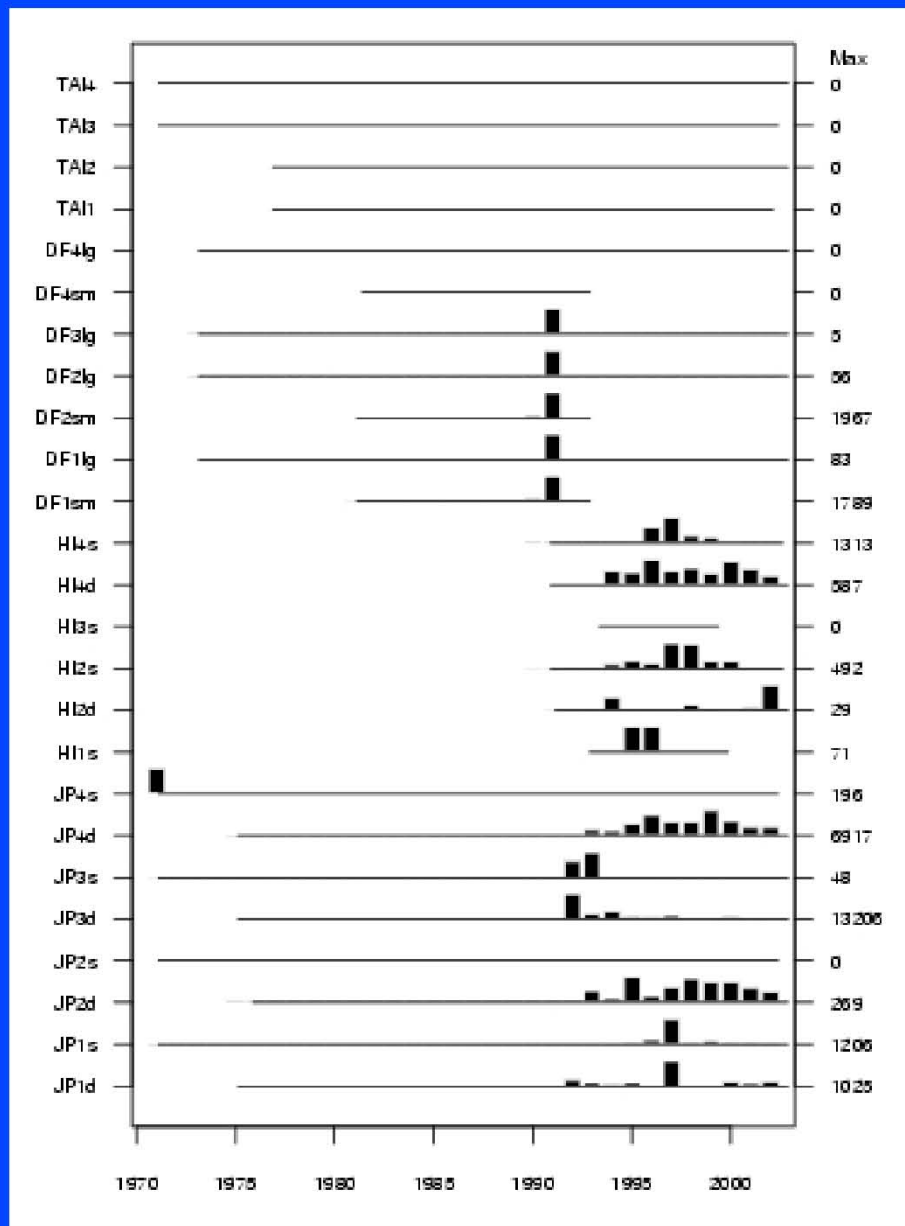
Linf in N. Pacific:

males 290 – 308 cm
females 242 – 256 cm

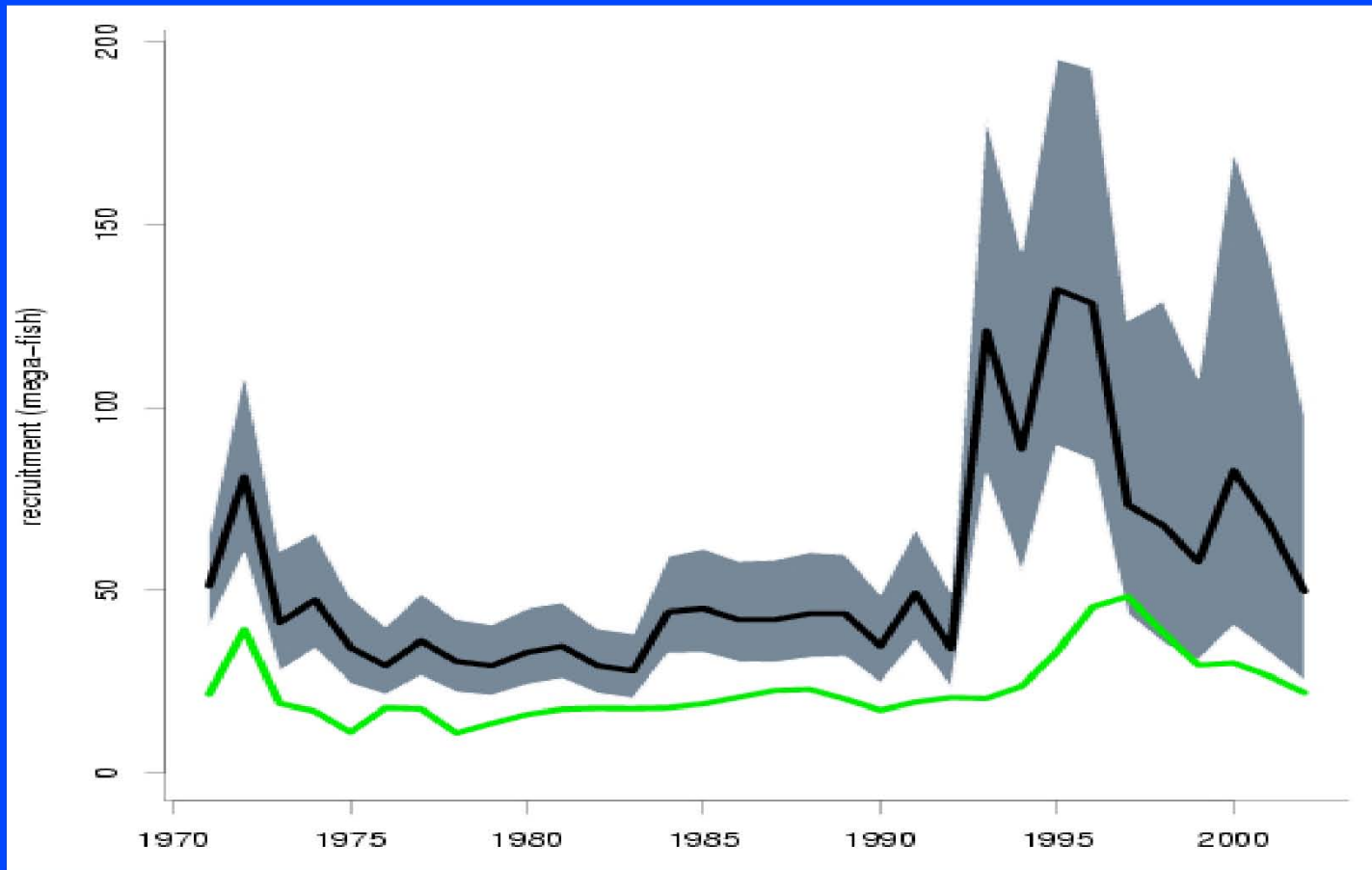
Catch in 4 regions, 1971--2002



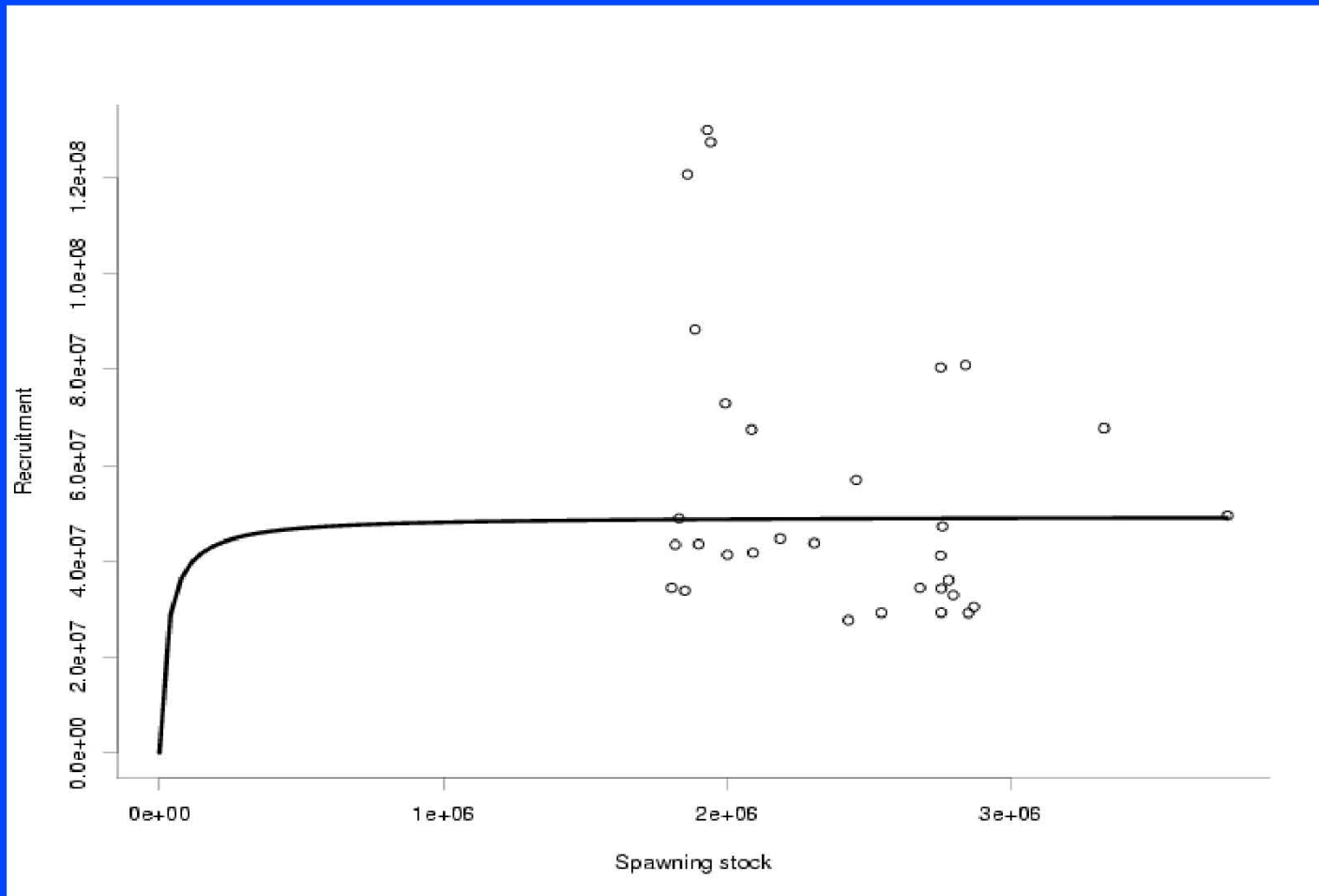
Size sample data by fleet and time



Recruitment



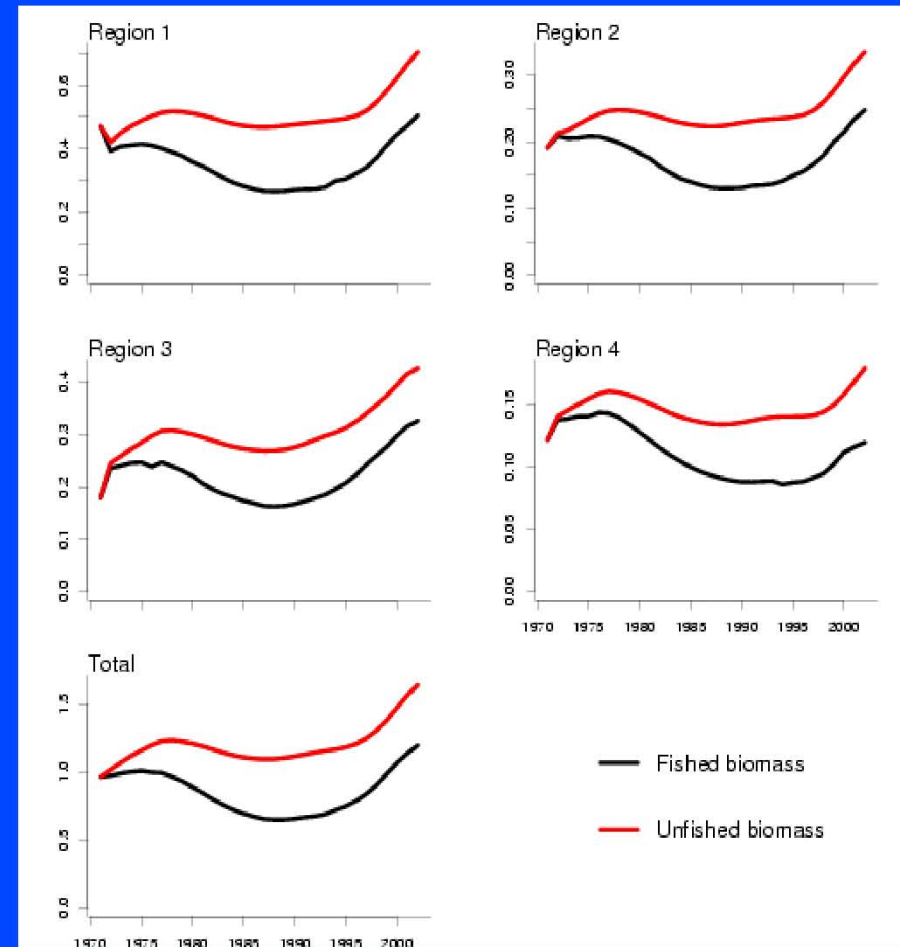
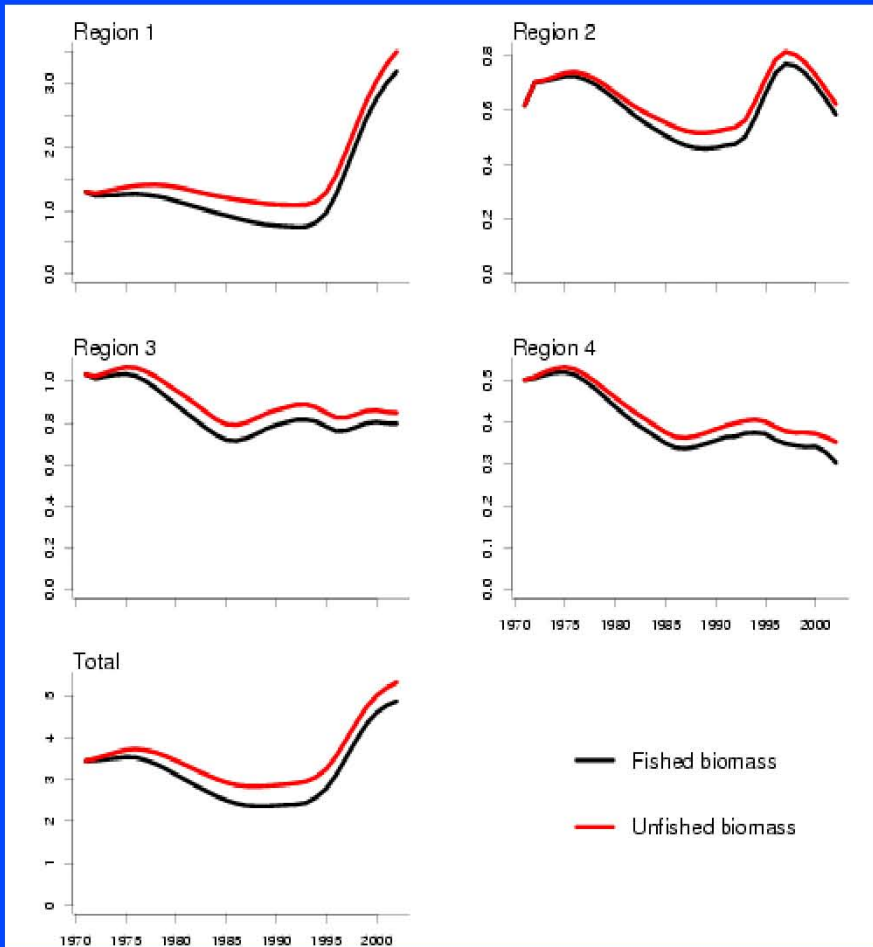
Stock Recruitment



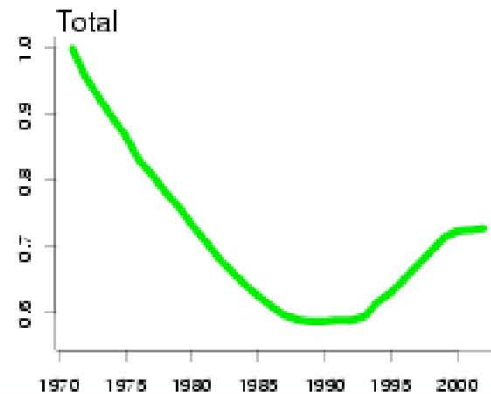
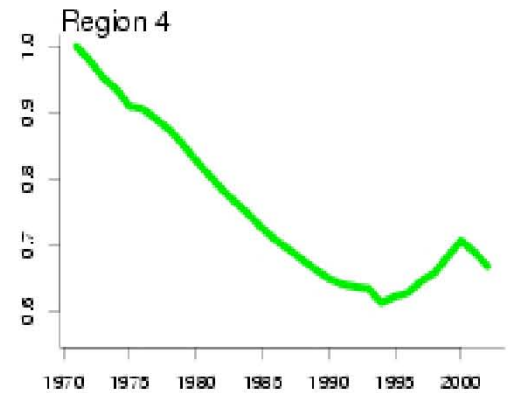
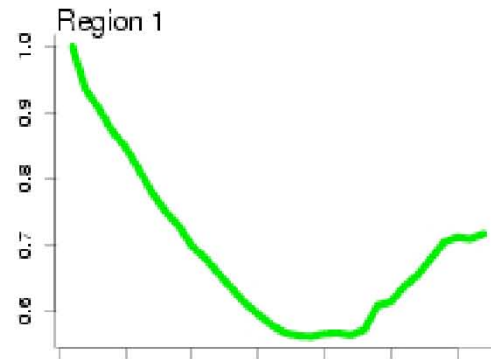
Biomass with and without fishing

last week

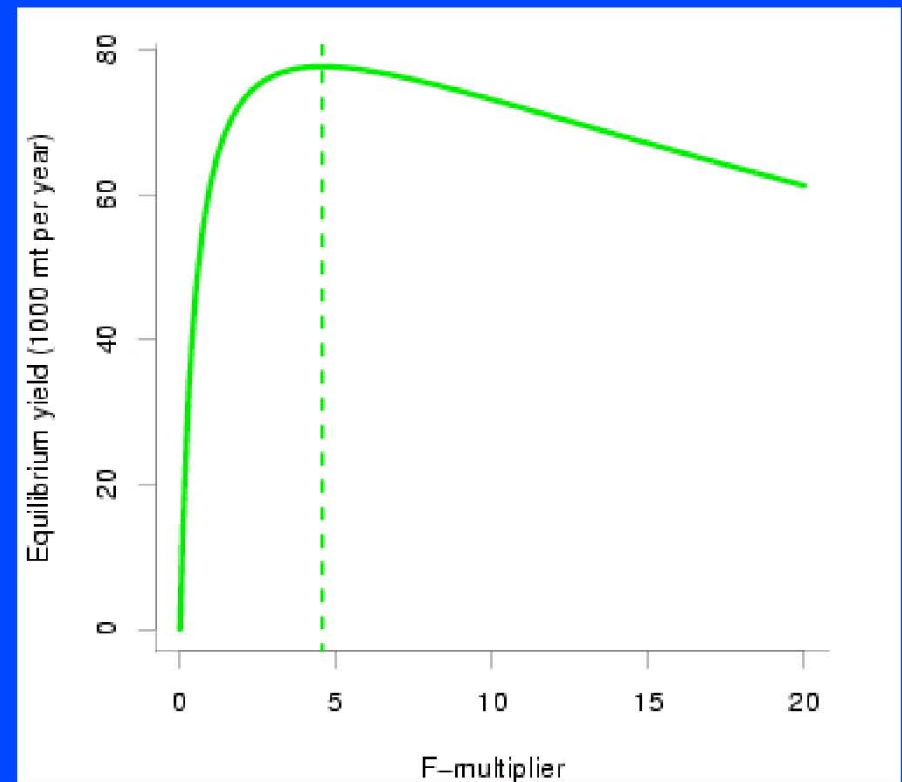
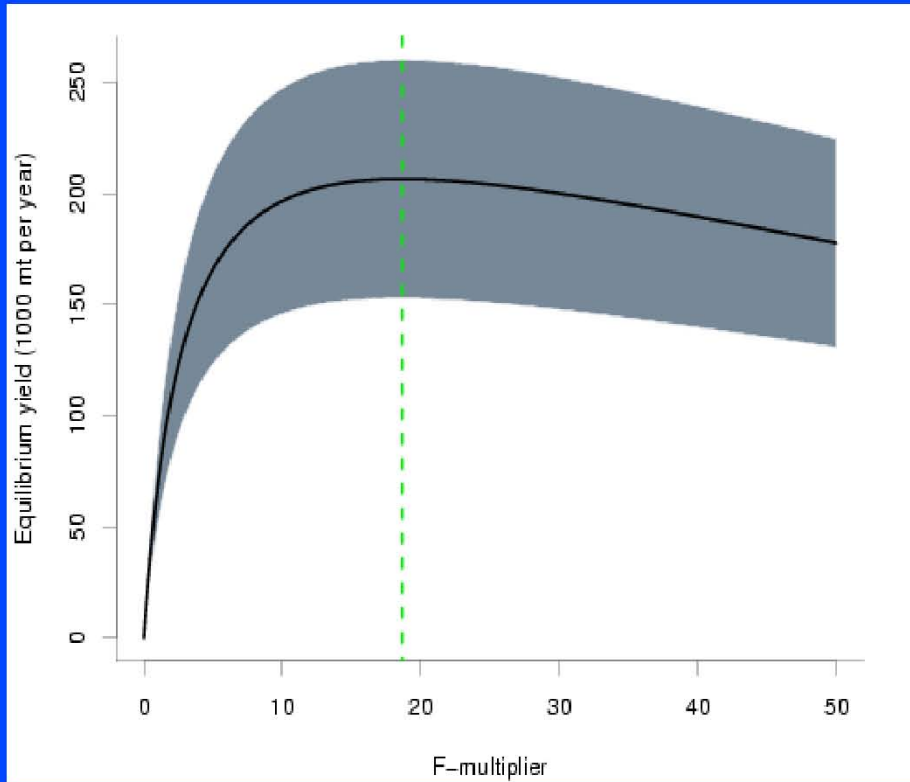
today



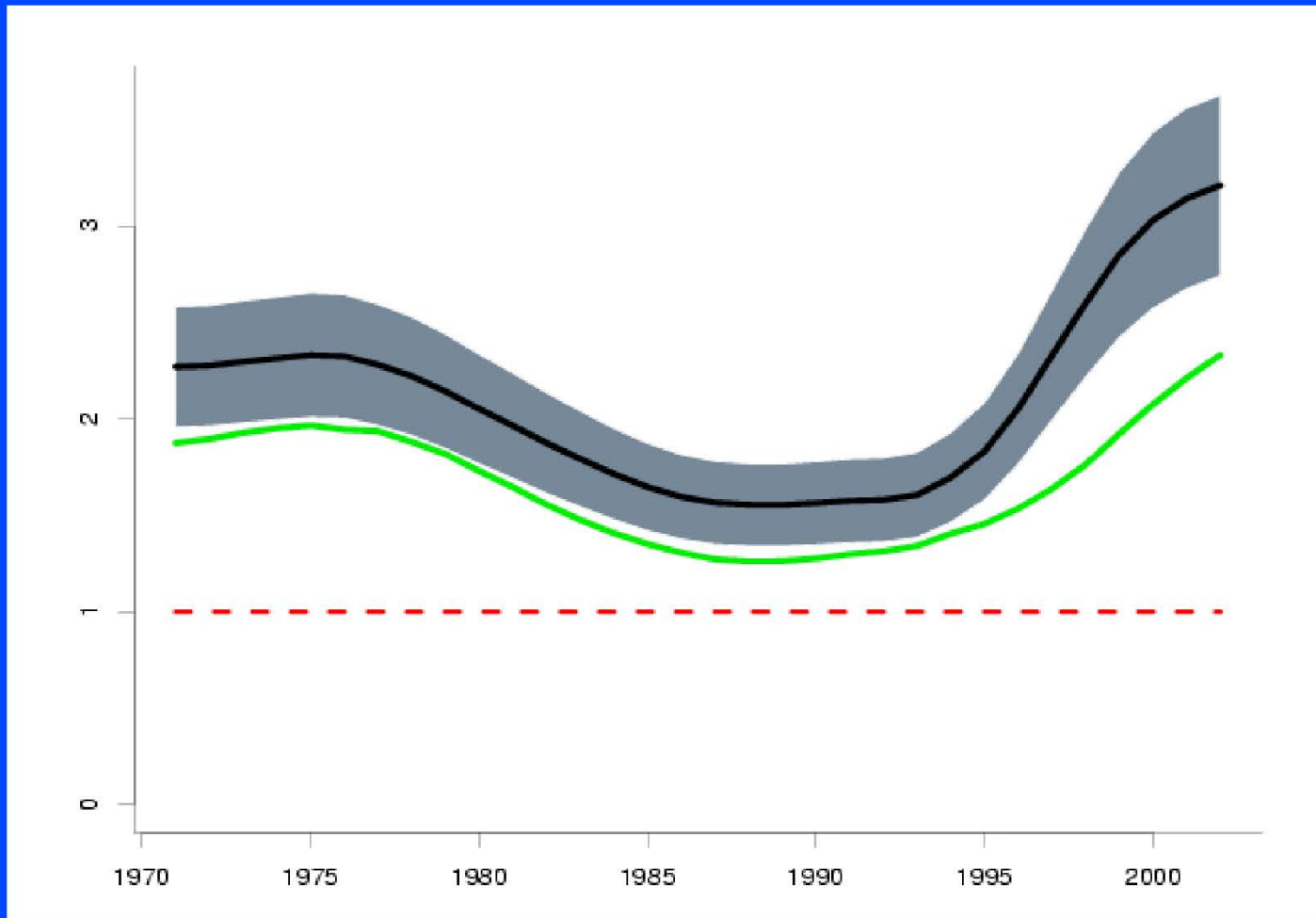
Fishery Impact



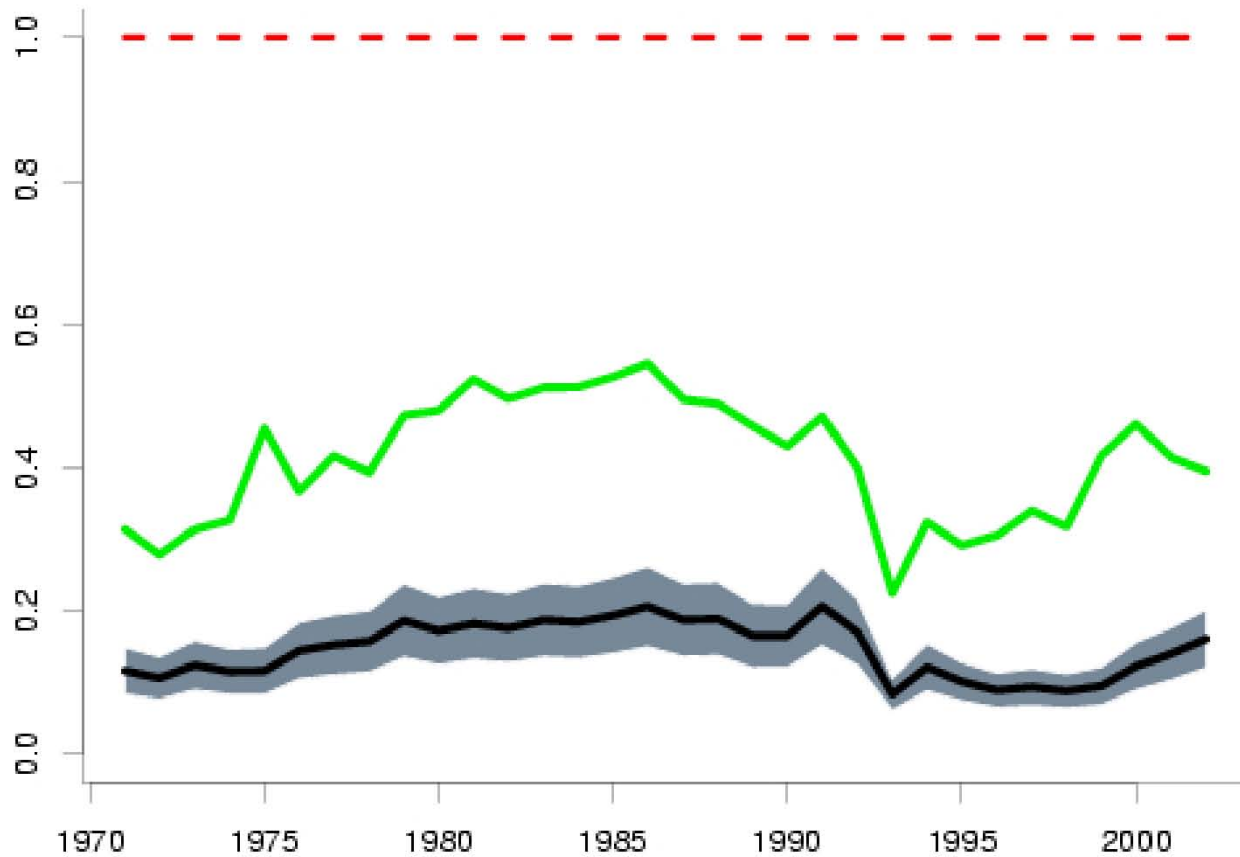
Yield Curve



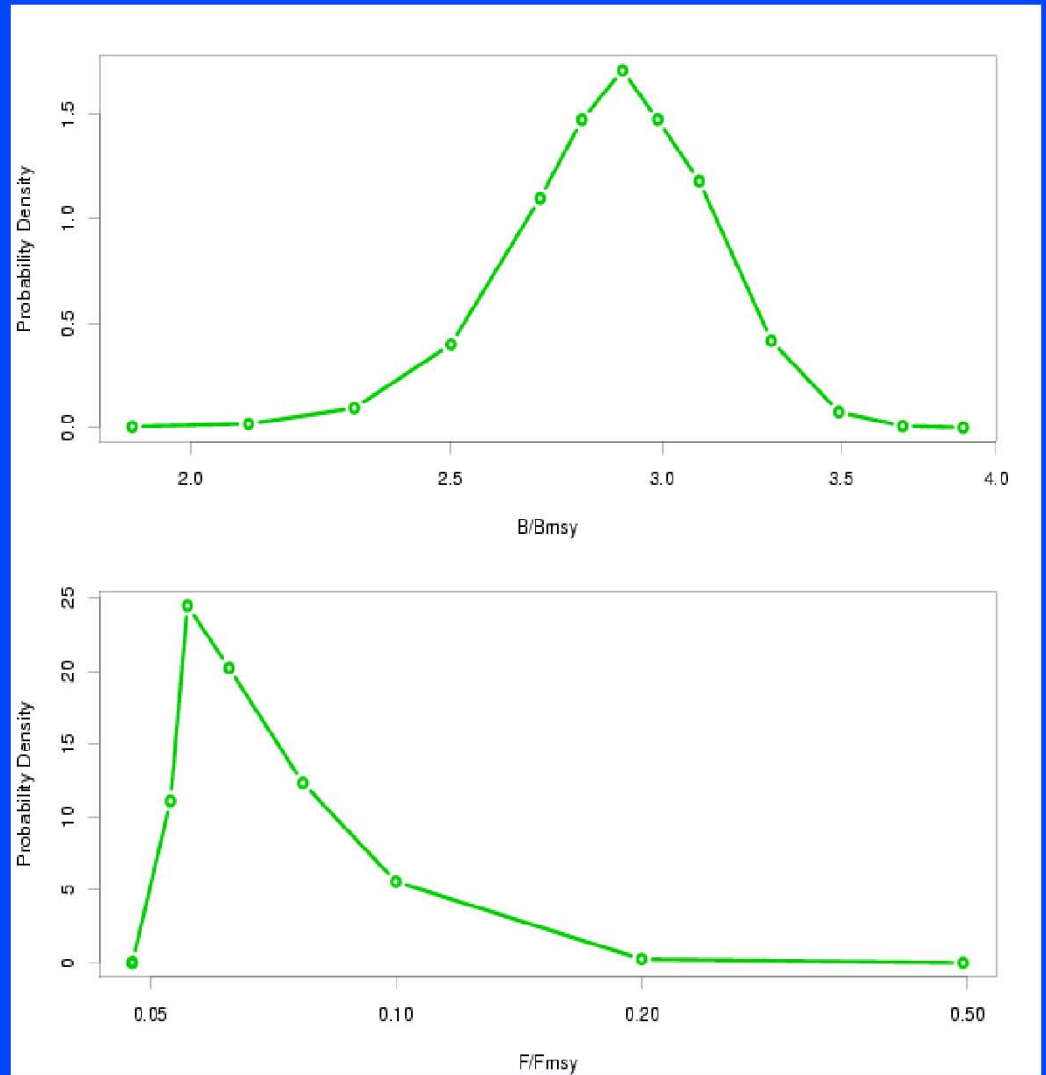
Biomass/Bmsy



FishingMortality/Fmsy



Likelihood Profiles







Structural Set-up

SRR1.par q-dev penalties (“Qt”)=50 (the default)
4 regions (was 2 before)
25 fleets:
no tags